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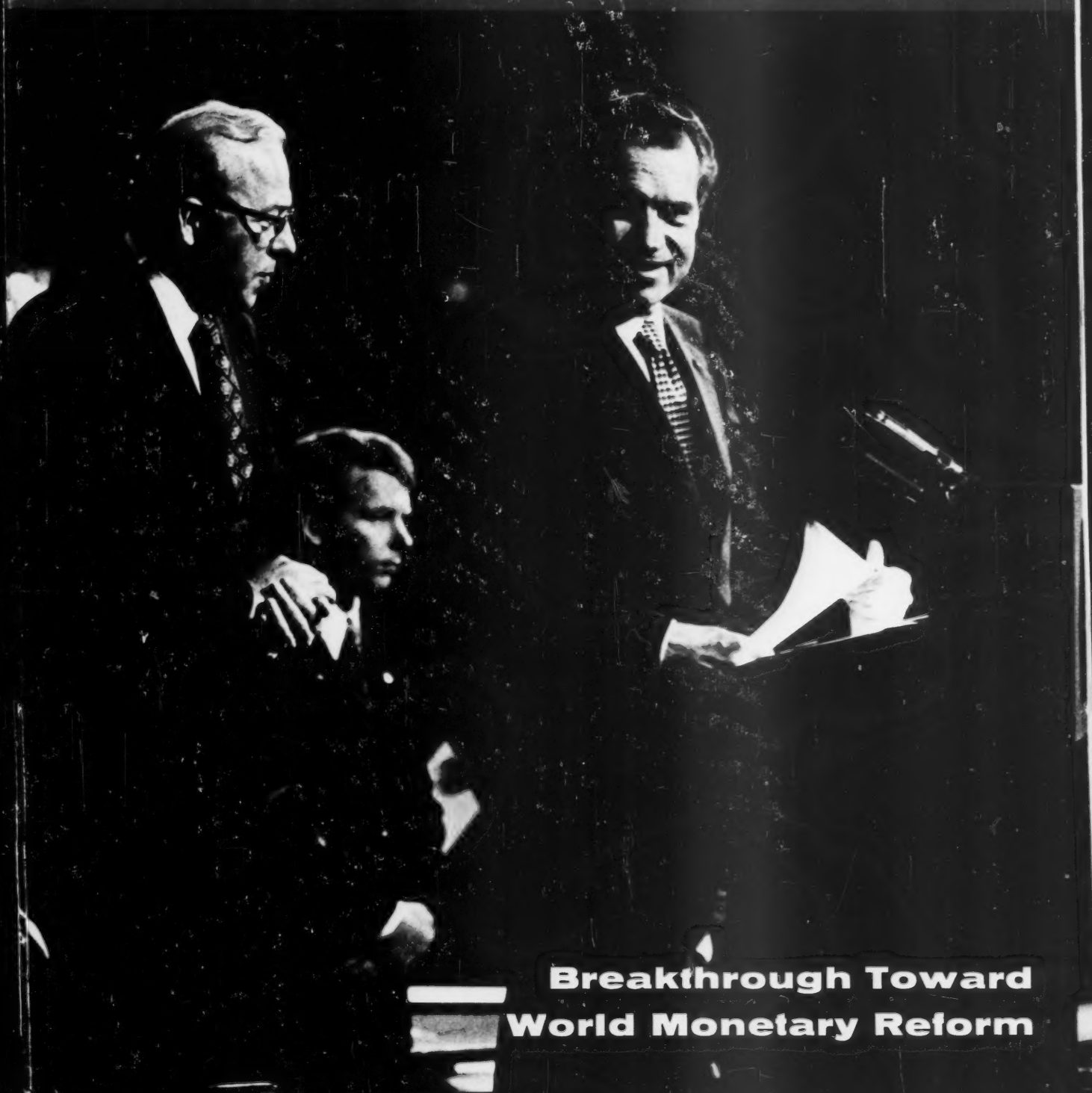
Incorporating *International Commerce*

OCTOBER 16, 1972

# Commerce Today

## Coming Developments in Business and Technology



## Breakthrough Toward World Monetary Reform

# Newsmemo

The impact of advancing technology on an American industry: a doubling of production in the next four years! This is expected to happen in the reinforced plastics industry, which expects its total output to hit 2 billion pounds by 1976. The Reinforced Plastics Composites Institute, which makes the prediction, points out that the current total of just under a billion pounds included 260 million pounds for marine uses, 219 million for land transport, 134 million for consumer goods, 56 million for electrical parts, 43 million for appliances and equipment, and 25 million pounds in aircraft-aerospace.

Even where the major economic pointers go limp, the ones labeled tourism continue to aim higher and higher. So says a new report from the OECD--an organization representing the world's major industrial nations. One result is that governments everywhere are making tourism promotion a part of their major economic planning. And this means booming worldwide expenditures, both public and private, in such fields as road and hotel and motel building.

Such continuing growth in global tourism is good news also for the U.S. air conditioning and refrigeration equipment industry. The extent of it is spelled out in a new Bureau of International Commerce report "Global Market Survey: Air Conditioning and Refrigeration Equipment." Assessing prospects in 21 countries, the survey sees a 12 percent annual rise in imports from now through 1975. And U.S. firms are poised to exploit their pioneering and advanced images in this field. The report is available at $1 from the Supt. of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or any Commerce field office.

The push toward the metric system in the U.S. continues. A voluntary National Metric Planning and Coordination Council, with industry, labor, consumers and government representation, is expected to be named soon by the American National Standards Institute. The council would be a forum for solving of metrication problems, including the timing of the changes and assessment of costs and technical hurdles if the U.S. adopts the changeover. The council could also help establish metric standards.

The Foreign-Trade Zone network in the U.S. has a new unit 600 miles inland. Little Rock, Ark., and its Port Industrial Park on the Arkansas River now has the 12th Foreign-Trade Zone. Such zones are areas under U.S. Customs supervision to which foreign merchandise may be brought without immediate requirement of a formal Customs entry. The goods may be exhibited, stored, assembled, used in manufacture, or otherwise processed within the zone. Duties need not be paid unless and until the goods move into U.S. Customs territory. Merchandise with a combined value of about $200 million moves in and out of such zones each year. About 15-20 percent of it is reexported.

# Commerce Today

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**Vol. III, No. 1, October 16, 1972**



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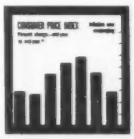

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**COVER:** *President Nixon and Treasury Secretary George P. Shultz present U.S. initiatives that can lead to reform of the world monetary system during addresses last month in Washington to the joint annual meetings of the International Monetary Fund and the World Bank. Story begins on Page 4.*

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ECONOMIC
HIGHLIGHTS

# Inflation Moderates; Rate In U.S. Low Compared With Other Major Nations

*Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).*

That energetic old gray mare called inflation at last seems to have her halter on straight after another escapade. Although she has not yet been tied down and branded, at least she's no longer galloping through the cabbage patch.

The rate of inflation has slowed substantially since 1970, and over the past 12 months the U.S. has recorded the best price performance among the major industrialized nations.

In the mid-1950s, there was a burst of inflation, and both fiscal and monetary restraint were used to keep it from accelerating into a critical, runaway situation. As a result, inflationary psychology was held to a minimum for an extended interval, and between 1958 and 1964, the Consumer Price Index rose only a little more than 1 percent per year.

It was a different story, however, in the late 1960s. Federal expenditures climbed sharply under pressure from the step-up in the Vietnam War beginning in 1965 and a major expansion of non-defense programs. There were no offsetting measures of restraint, however, until the enactment of the income tax surcharge in mid-1968. As a result of the delay in applying restraint, inflation bounded upward at an accelerating rate in the late 1960s.

During the first year of the Nixon Administration, this fiscal restraint was continued and monetary restraint was initiated to curb inflation by squeezing the excess demand out of the economy. The economy peaked in late 1969, but there is usually a lag between the slowing of the economy and the slowing of inflation, and the rate of price increase did not peak until 1970.

By mid-1971, the inflation rate, as measured by the Consumer Price Index, was slowing but the need for more decisive results, especially in view of an international monetary crisis, led to the imposition of mandatory controls on prices and wages.

Results have been excellent over the past 12 months. Consumer prices are now only 3 percent above the level of mid-1971. There has been notable progress even in such a troublesome area as services. For example, prices of consumer services have increased only 3½ percent in the past 12 months compared to a rate of more than 8 percent in the 1969-70 period.

While wholesale prices have been more stubborn, the deflator for the Gross National Product—considered the most comprehensive measure of inflation—has moved at a rate about half that of the 1969-71 period.

From mid-1971 to mid-1972, U.S. consumer prices increased less than those of the other major trading nations—the rise of less than 3 percent compares with 4½ to 6 percent for our major international competitors. If this relative performance continues, the U.S. dollar will gain strength and our efforts to return our merchandise trade balance to the black ink side of the ledger will be materially assisted.

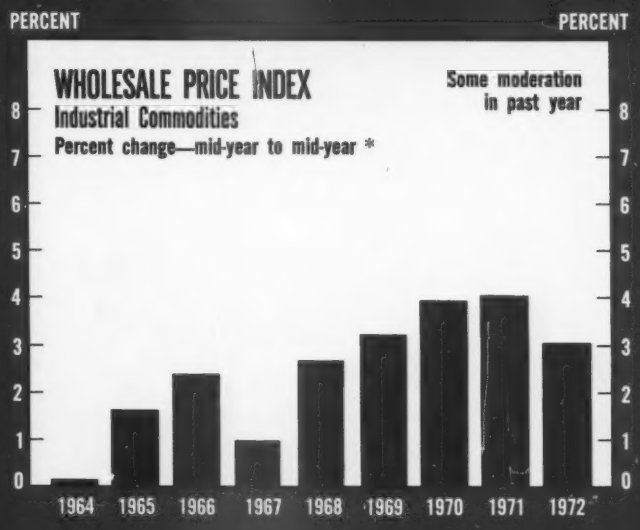
Thus, the edge has been taken off inflation, and, with proper attention to fiscal and monetary policies, we have a good chance of making further progress toward our goal of reasonable price-cost stability.

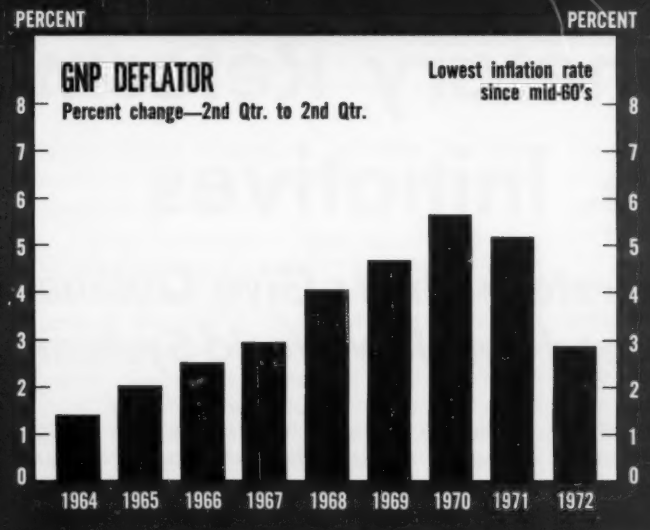
## Other economic data

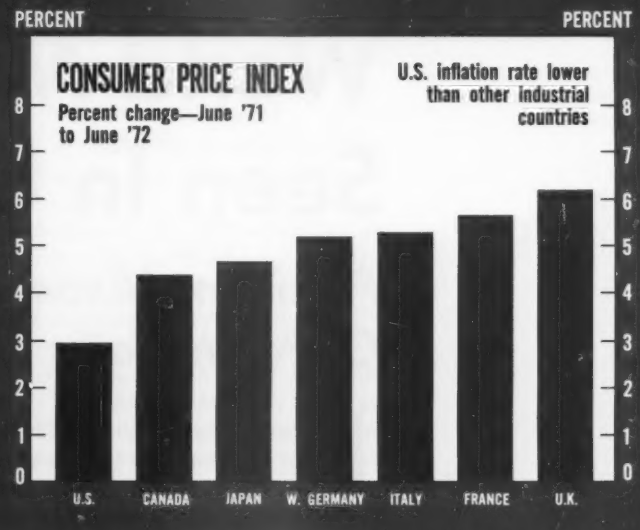
The leading indicators gained sharply in August, forecasting continued strong economic expansion. Factory orders for durable goods hit a new peak, an indication of further gains in industrial production.

# Latest Indicators

PERCENT
PERCENT
CONSUMER PRICE INDEX
Percent change—mid-year to mid-year *
Inflation now moderating
0 1 2 3 4 5 6 7 8
1964 1965 1966 1967 1968 1969 1970 1971 1972


PERCENT
PERCENT
WHOLESALE PRICE INDEX
Industrial Commodities
Percent change—mid-year to mid-year *
Some moderation in past year
0 1 2 3 4 5 6 7 8
1964 1965 1966 1967 1968 1969 1970 1971 1972


PERCENT
PERCENT
GNP DEFLATOR
Percent change—2nd Qtr. to 2nd Qtr.
Lowest inflation rate since mid-60's
0 1 2 3 4 5 6 7 8
1964 1965 1966 1967 1968 1969 1970 1971 1972



* Average of June-July-August

1/ Orders for durable goods are seasonally adjusted

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Vol. III, No. 1
October 16, 1972

# Breakthrough Toward World Monetary Reform Seen In U.S. Initiatives

## *President Nixon, Secretary Shultz Give Outline Of Points; Talks Proceed On New World System*

Initiatives by the United States are offering the world business community new hope that an urgently-needed reform of the international monetary system can be achieved, and talks are now proceeding toward that goal.

In an unusual and significant appearance last month at the opening session of the joint annual meetings of the International Monetary Fund and the World Bank, President Nixon called for "a thoroughgoing reform of the world monetary system," and promised that the United States "will continue to rise to its world responsibilities, joining with other nations to create and participate in a modern world economic order."

Treasury Secretary George P. Shultz followed up the next day by presenting a number of specific ideas about reforming the international monetary system. These constituted the most detailed public statement of official U.S. views on the problem yet presented.

The two addresses by President Nixon and Secretary Shultz effectively countered the charge made by some observers that the U.S. Government has been dragging its feet in monetary matters and not supplying the direction expected of the leading economic power.

The task of drawing up plans for a new monetary system has now been given to the recently-created IMF Committee on Reform of the International Monetary System and Related Issues. Secretary Shultz is the U.S. official representative on this "Committee of 20." However, the actual day-to-day negotiations will be carried on by a sub-committee of deputies, including, for the United States, Treasury Undersecretary Paul A. Volcker and Federal Reserve Governor J. Dewey Daane. Both of these groups held their initial meetings during the last week of September.

Secretary Shultz and others have expressed the hope that agreement can be reached within a year on the main outlines of a new

**INTERNATIONAL FORUM**—*Array of flags and nameplates testifies to the worldwide flavor of the joint annual meetings of the International Monetary Fund and the World Bank Group.*

international monetary system. However, working out the details is likely to take considerably longer.

The final outcome of these negotiations will be of great importance to workers, businessmen and consumers in the United States and around the world. It could also have significant effects on political relations among world powers. A successful outcome would facilitate the continued growth of world trade, production and prosperity. Failure to reach agreement could lead to recurring monetary crises, increased barriers to trade and capital flows, division of the free world into regional blocs, and strained political relations among free world nations.

## President's views

In his Sept. 25 address, President Nixon stressed the close relationship between international monetary and trade problems. He left little doubt he believes that U.S. labor and U.S. trading interests had suffered from "unfair currency alignments and trading arrangements," and he warned that he would not "condone the export of jobs out of the United States caused by an unfairness built into the world's trading system." Monetary reform must be viewed, he said, "as one vital part of a total reform of international economic affairs, encompassing trade and investment opportunity as well."

The need for reforming the international monetary system has become evident in the past few years as a result of a succession of international currency crises. These culminated in the decision by the United States on Aug. 15, 1971 to close its "gold window" and stop converting dollars held by other countries into gold or other reserve assets. At the same time, the U.S. Government imposed a temporary surcharge on imports and announced other changes intended to improve the U.S. balance of payments. These steps were taken because there had been a sharp deterioration in the U.S. balance of merchandise trade and in the over-all U.S. balance of payments with the rest of the world.

Subsequent negotiations within the Group of Ten (the leading financial nations) led to the general agreement on realignment of exchange rates reached at the Smithsonian Institution last December. As part of this currency realignment, the dollar was devalued by 7.89 percent and a number of other currencies were either devalued or revalued upwards. While these changes over time will improve the U.S. balance of payments, they may not correct it entirely. Nor did they get at the underlying weaknesses of the international monetary system which have been responsible for the recurrent monetary crises. Secretary Shultz addressed himself primarily to the latter problem.

While disclaiming any intention of offering a detailed blueprint for world monetary re-

**WELCOME TO PRESIDENT**—*President Nixon was greeted by Indonesia's Finance Minister Ali Wardhana and Indonesian Central Bank head Radius Prawiro. Wardhana served as chairman of the Board of Governors at the IMF sessions; Prawiro for the World Bank Group sessions.*

form, Secretary Shultz put forward what he called "specific ideas" on six points:

- ► The exchange rate mechanism
- ► The reserve mechanism
- ► The balance of payments adjustment process
- ► Capital and other balance of payments controls
- ► Related negotiations
- ► Institutional implications

On the **exchange rate mechanism,** Shultz noted that most countries want to maintain central or par values for their currencies. He called for maintenance of wider margins around such central values than had been observed prior to the Smithsonian Agreement so that market exchange rates could fluctuate somewhat more freely than in the past. This would help to discourage destabilizing movements of short-term capital and to facilitate needed changes in central values. In addition, he said, provision should be made for countries which let their currencies float temporarily, as the United States did last year, instead of setting fixed values for them. However, he did not endorse any of the more radical proposals that have been made for exchange rate flexibility.

With respect to international **reserves,** which nations hold for emergencies or other future needs, the Secretary contemplated some changes in the importance of the different assets held. Special Drawing Rights (SDRs), a new type of international money created by the IMF during the past three years, would increase in importance and amount. On the other hand, gold should play a diminishing role in the future, although he did not expect it to disappear overnight from governmental holdings.

Official holdings of foreign currencies, including the dollar, "need be neither generally banned nor encouraged," the Secretary said, adding that such currency holdings can provide useful flexibility and elasticity to the system. At present, other nations hold tens of billions of U.S. dollars in their reserves plus smaller amounts of pounds sterling and a few other currencies. A number of countries would like to exchange part of their large dollar holdings for other reserve assets but are unable to do so because of the present inconvertibility of the dollar. Shultz said that proposals for exchanging part of these existing reserve currency holdings into a special issue of SDRs should be studied. He thus appeared to envision a diminished but still important role for dollars in the reserve mechanism.

A crucial element in any plan for international monetary reform would be an effective **balance of payments adjustment process.** The term refers to a mechanism for insuring that nations do not develop large or persistent balance of payments deficits and surpluses, as has happened in the past.

Secretary Shultz suggested that a disproportionate gain or loss in a nation's reserves should give rise to pressure on that nation to take corrective action. Such action might consist of changes in exchange rates or in internal economic policies. Any country refusing to take fundamental adjustment measures when these were called for would be subject to retaliatory action by other countries or loss of IMF privileges.

Shultz stressed, as have other U.S. officials in recent months, that surplus countries as well as deficit countries must share in the responsibility for correcting balance of payments situations in which some nations suffer serious losses of reserves while others gain reserves. Representatives of surplus countries have argued at times that the essential responsibility for corrective action should fall on the deficit countries—primarily the United States at the present time.

**Controls over trade and capital flows** received brief but critical comment from the Secretary. No country should be forced to use such controls, he said, in lieu of more basic adjustment measures.

Like President Nixon, Shultz stressed the need for **related negotiations** in regard to trade matters as well as monetary reform. To supplement the negotiations in the strictly monetary area, he called for parallel negotiations with respect to subsidies and fiscal or administrative pressures on trade and investment transactions.

On **institutional matters,** the Secretary said that the new set of monetary rules to be worked out should be placed under the guardianship of the IMF, and that the rules of the IMF and the GATT would need to be harmonized. The GATT is the General Agreement on Tariffs and Trade, an international agreement and organization regulating trade practices.

One of Secretary Shultz's most important statements was that the United States would be prepared, after some transitional period, "to undertake an obligation to convert official foreign dollar holdings into other reserve assets." In effect, the Secretary was saying that the U.S. would again take part in a monetary system in which U.S. balance of payments deficits would result in a loss of reserves. However, this obligation would only be undertaken if a satisfactory adjustment process were developed and only after the United States had, during the transitional period, restored its capacity to meet this obligation in terms of a stronger reserve and balance of payments position.

VIEWS OF MANY NATIONS—*Many national viewpoints were expressed at the joint IMF-World Bank Group meetings. Now the task of planning for a new world currency system rests with the IMF Committee on Reform of the International Monetary System. (Photos by World Bank)*

With regard to U.S. problems, Shultz said that this country must continue its efforts to improve its balance of payments position. These efforts had at times been thwarted, he said, by the reluctance of other countries "to give up an unjustified preferential and highly protected market position." Nevertheless, he indicated no discouragement about the eventual outcome, and said that continuation of the progress the United States had made during the past year toward price stability, improved productivity and more rapid growth would be the best medicine for both domestic prosperity and effective functioning of the international financial system.

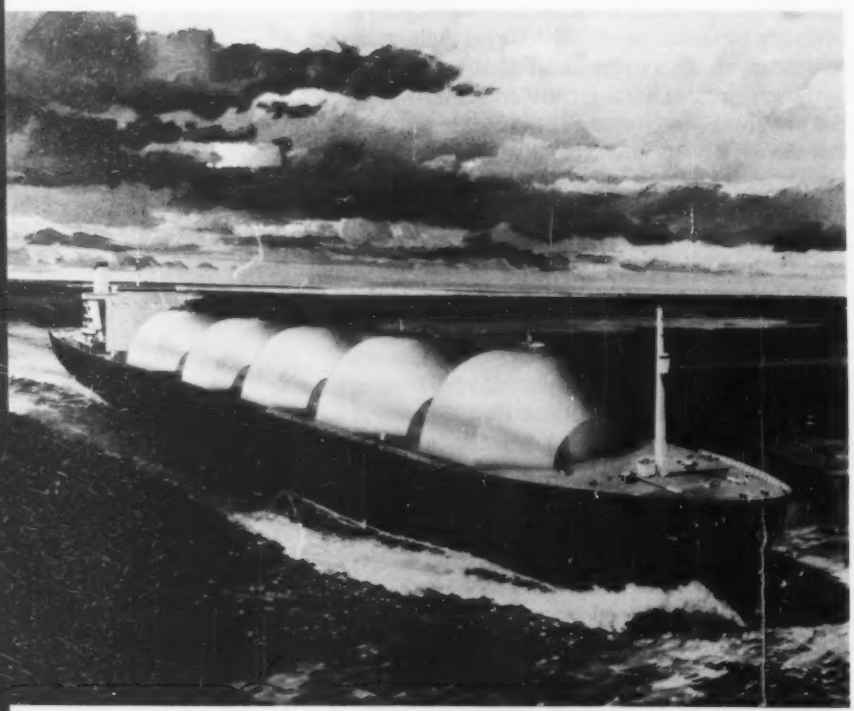
During the week-long meetings of the Fund and Bank, each member nation had the opportunity to express its views on monetary problems, economic development and related matters. It was made evident that the world is still far from agreeing on the kind of monetary system that will take the place of the one designed a quarter of a century ago at Bretton Woods. Nevertheless, observers felt at the end of the week that the differences between nations on this score were less serious than had been thought before the meetings. The addresses by President Nixon and Secretary Shultz are given credit for materially improving the atmosphere for the forthcoming negotiations on reforming the international monetary system.

*—Bureau of International Commerce*

PRESENTING U.S. INITIATIVES—*Secretary of the Treasury George P. Shultz, speaking on Sept. 26 to a joint IMF-World Bank Group audience, outlined six "ideas" to help bring monetary reform.*

# First LNG-Ship Orders Mean Bright Future For Merchant Marine

## *Largest Ship Contracts In American History Create Thousands Of New Jobs In Two Areas*



ARTIST'S CONCEPTION—*An artist's rendering of a 125,000 cubic meter capacity liquefied natural gas carrier. Three of these LNG tankers will be built by General Dynamics' Quincy, Mass., shipyard.*

One shipyard, surrounded by a heavy overcast of rumors predicting a complete shutdown in its operations, is, instead, gearing up to push ahead full steam—securing thousands of its jobs and even creating new ones.

Another, for years dedicated primarily to building U.S. Navy vessels, is launching expansion plans to increase its capabilities to serve the private shipping industry as well, enlarging its facilities to produce the most technically advanced commercial ships.

The new surge of life activating both shipyards (the Quincy, Mass., Shipbuilding division of General Dynamics Corp. and Newport News Shipbuilding & Dry Dock Co.) is the result of the awarding of the two largest peacetime shipbuilding contracts in the history of the Nation—totaling more than $566 million—for the construction of six liquefied natural gas tankers.

The contracts, signed late last month, represent the first Federally subsidized contracts for LNG tankers, and the new ships will be the first of their type to be built in the U.S.

The Government's share of the two contracts will approximate $140 million.

Approved for the Quincy yard are three LNG vessels costing $268.7 million to be delivered between 1975 and 1977—one each to Cryogenic Energy Transport, Inc., Liquegas Transport, Inc., and LNG Transport, Inc.

The Newport News project also involves three LNGs at a total cost of $297.7 million. These ships are to be delivered at six-month intervals beginning in February 1976 to three subsidiaries of El Paso Natural Gas Co., Houston, Tex.

## A start for U.S.

The agreements not only herald the entry of U.S. shipyards into competition with foreign yards for the construction of these highly sophisticated tankers, but they also pave the way for the American Merchant Marine to play a major role in helping to meet the country's expanding energy crisis.

It is recognized that rising consumer wants in the U.S. will necessitate increased imports of both crude oil and liquefied natural gas. With LNG carriers being built in U.S. shipyards and sailing under the U.S. flag, long-term economic gains can be realized for the shipping industry, while at the same time these transports will be delivering a needed source of power to U.S. shores.

And when that power source is natural gas it will serve another need, because natural gas is clean energy and can eliminate many of the pollution problems faced by the utility companies.

The six LNG tankers presently under order will each have the capacity to carry 125,000 cubic meters of liquid gas and are planned to carry the gas from Algeria to the eastern shores of the United States.

The El Paso contract has an option to order three more to be built by Newport News, and Richard A. Norman, Special Assistant to the Assistant Secretary of Commerce for Maritime Affairs, notes that the Maritime Administration presently is considering 11 more hard applications that will be decided in the near future and is expecting applications for even more.

Robert J. Blackwell, the Assistant Secretary, points out that the MarAd construction subsidy program, under which owners can purchase ships in U.S. shipyards at the same price they could get from a shipbuilder abroad, is especially attractive for the LNG tankers. The differential subsidy for LNGs—the cost borne by the government—is about 20 to 25 percent of the domestic cost, as opposed to about 40 percent for other types of ships.

AERIAL VIEW—*An overall view of General Dynamics Quincy, Mass., shipyard which, before the LNG contract, was threatened with closing and now will be the hub of activity for the new shipbuilding.*

Edwin M. Hood, president of the Shipbuilders Council of America, said that LNG carriers are now being offered by U.S. yards at prices approximating $82 million to $100 million (depending on the number of ships involved in the orders). Foreign prices for comparable designs are equated at $70 to $80 million.

Hood expresses the opinion that the closing of the price differential between foreign and U.S.-built LNG ships results from the fact that foreign tanker construction costs have been rising at a faster rate than the same prices in the U.S., which well may bring the costs of these technically advanced ships into a far more competitive range.

Blackwell also notes that the Maritime Administration offers two other programs designed to aid in the construction of ships in the United States.

"First," he said, "it is empowered to guarantee commercially placed mortagages on ships built domestically."

What Blackwell's statement means is that under this program shipowners are permitted to obtain 20-year debt financing for their ships under this program at prevailing U.S. rates, despite the cyclical ups and downs of the shipping industry.

Additionally, under another program, qualified shipowners may establish tax-deferred funds, in which they may deposit vessel earn-

MODEL STUDIED—*Secretary of Commerce Peter G. Peterson (left) and U.S. Sen. Edward W. Brooke examine a model of a Liquid Natural Gas Tanker. General Dynamics Quincy Shipyard has been awarded a $270 million contract to build three of the vessels for delivery between 1975 and 1977.*

***Liquefied natural gas is natural gas cooled to about 260 degrees below Fahrenheit. In this state, the gas is compressed to 1-600th of its normal volume and can be carried in tankers, being "regassified" to its natural state at its destination.***

ings, depreciation, and capital gains, if the proceeds are used to finance new construction, conversions or vessel acquisitions.

Blackwell feels that American shipyards and vessel operators will soon become a major element in the world market for building and operating LNG ships.

"I am convinced," he said, "that these new contracts for LNG tankers represent the first flight of what will prove to be a long line of these advanced vessels built in the United States and operated under the American flag.

## Capabilities there

The Assistant Secretary pointed out that American shipyards and cryogenic manufacturers have the capabilities and capacity to build these ships. American operators and seafaring labor unions, he also noted, are genuinely interested in operating these ships.

"And, finally, the government supports the construction and operation of LNG ships."

In announcing the two LNG contract awards, Secretary Peterson said, "These orders represent an historic milestone for American shipbuilders, for it signals the entry of domestic shipyards into the world market for these unique ships—a market that could grow to $10 billion in the next 10 years or so."

Additionally, the Secretary noted, this contract, and the ones to follow can be traced directly to President Nixon's maritime program which extends construction aid to bulk carriers, including LNG ships. "Without the assistance provided by the President's program, these ships could not have been built in this country, and American shipbuilders would have lost one of the brightest opportunities they have ever had," he said.

Although purchasers could have ordered these ships abroad, Mr. Peterson commented, "favorable financing arrangements available in this country, and early delivery dates swung the balance in favor of building in the United States."

The Quincy agreement calls for three ships to be built to the Moss-Rosenberg spherical-tank design. Each tanker will be 936 feet in length and 144 in beam, with an operating draft of 36 feet. Their 43,000-horsepower propulsion plants will translate into an operating speed of more than 20 knots.

The gas when unloaded at U.S. ports will be used by the Algonquin Gas Transmission Co. of Boston, Mass., and the Public Service Electric and Gas Co. of New Jersey to supply a total of 2.3 million customers in their respective service areas.

Not only does the new order mean that the Quincy shipyard will stay in business, but a spokesman for the yard stated that it means the creation of about 3,500 new jobs at the facilities over the next three to five years, while the ships are being built.

Lloyd Bergesen, general manager of this General Dynamics division, said that the signing of the Quincy contract marks the culmination of two years of design and planning effort by the company in order that the Quincy yard might pioneer in LNG ship construction in the United States.

The Quincy official also said that this contract may be just a beginning. "We are," he said, "in fact, negotiating with at least two other customers who have filed for construction subsidies based on our LNG design.

"If these are successful, it would mean

contracts for more than 10 more of this same ship."

The three ships to be built at Newport News, a subsidiary of Tenneco, Inc., will each have a length of 949 feet and a beam of 135 feet. Each will displace 96,580 tons at their 36-foot operating draft. Their 40,000-horsepower steam turbines—which will burn the natural gas "boil off" from their cargoes, as well as conventional oil—will give the ships an operating speed of 20 knots.

The liquid gas cargo will be shipped from Arzew, Algeria, to Cove Point, Md., and Savannah, Ga., where it will be regassified by three utility companies and piped to consumers in the Middle Atlantic and South-eastern States.

At the time of the contract timing, the El Paso-Newport News contracts were contingent on the approval by the Federal Power Commission of a $1.7 billion project to import into the U.S. up to 1 billion cubic feet of Algerian LNG per day. The FPC in June approved El Paso's bid to import Algerian gas, but imposed restrictions under which the company and other gas firms did not feel they could economically proceed with the project.

## Decision revision

Upon appeal, last week the commission reaffirmed its basic approval of the gas-import plan, and said it was eliminating some of the prohibitive restrictions, agreeing that its earlier decision was not "economically viable."

Among the ruling revisions made by the FPC was the elimination of the provision requiring gas distributors to sell the new imported gas separately from present supplies and at very high prices to customers. However, the pipeline companies buying the gas from El Paso are still prohibited from including the LNG costs with their overall costs.

The commission also reversed its ruling on the 1 percent ceiling on escalation of the price El Paso may pay the Algerian state-owned oil company. It also ruled that the commission could not have jurisdiction over the international transaction, only assuming jurisdiction when the gas is received by the pipeline companies in the United States.

This, and other changes made by the FPC from its original decision, appear to remove the obstacles El Paso indicated had endangered the health of the Algerian gas import project. The FPC revisions, in fact, should remove the contingency clause from El Paso's contract with Newport News.

A Newport News official said that the new contract is an economic boom for the shipyard, and will have an outreaching effect on the surrounding community.

The Virginia shipyard had already announced plans for the expansion of its facilities. The awarding of the nearly $300 million contract makes these plans—already begun—a positive reality.

## Jobs increase

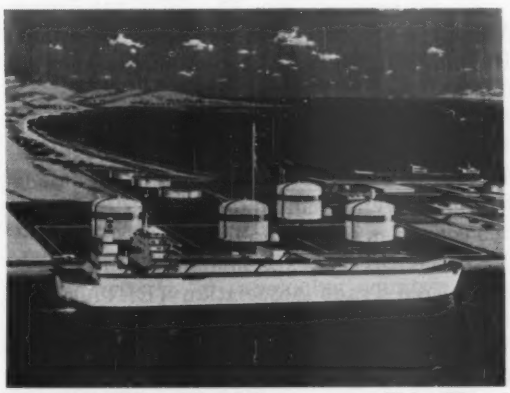
The facility, which now employs 27,000 workers, will see this number increased to 30,000 within the next 12 months as a result of the LNG agreement. The three-ship award represents 2,500 jobs over the three years it will take to build the vessels. In addition, subcontracts to equipment manufacturers and suppliers will generate another 1,250 jobs.

If El Paso's option for more LNGs is picked up, this will create another 1,200 jobs in the yard and double the number of jobs with subcontracts.

Blackwell said that the award of the two LNG contracts brings to nearly $1.7 billion the total value of shipbuilding contracts awarded under President Nixon's maritime program, since it was enacted into law as the Merchant Marine Act of 1970 in October 1970.

"Without the President's program," he emphasized, "which extended construction assistance to bulk carriers, including LNG ships, the 24 tankers, ore-bulk-oil ships, and LNG carriers included in the shipbuilding effort would probably not have been ordered from U.S. shipyards."

—*Maritime Administration*



**EL PASO SHIP**—*Liquefied gas cargo will be shipped in vessels such as this one which is to be constructed for El Paso Natural Gas Co., Houston, Tex.*

# Larger Common Market To Be Both Challenge, Opportunity For U.S.

## *Expanded Industrial Area Can Offer Greater Sales Potential, But Competition Will Stiffen*

Current headlines call the widening of the European Common Market one of the truly significant political and commercial events of the decade. Behind the headlines, U.S. exporters are viewing the event as both an opportunity and a challenge.

The opportunity will emerge from the expected growth of an enlarged market area, whose internal trade barriers will disappear. The challenge will come from the stepped-up integration of already powerful competitors.

At Brussels on Jan. 22, 1972, the Prime Ministers of the United Kingdom, Denmark, Ireland, and Norway signed accession treaties enabling these four countries to become members of the European Community (EC). This ceremony culminated more than a decade of discussions and negotiations among the six current members of the EC and various countries interested in joining.

Six months later six members of the European Free Trade Association (EFTA) concluded agreements with the Community leading to free trade in industrial products by 1977.

U.S. industrial exports will face increased tariff discrimination in both the enlarged EC and the EFTA non-applicants. The gradual dismantling of all trade restrictions between the current EC countries and the applicants, as well as adoption of the Common Agricultural Policy by the applicants, will result in further disadvantage for U.S. industrial and agricultural exports. Several unknowns in the integration process, such as the direction of monetary and industrial policies, could even further increase the competitiveness to U.S. commercial interests.

### Accession treaties

The European Community is composed of two organizations in addition to the European Economic Community (the Common Market or EEC). They are the European Coal and Steel Community, and the European Atomic Energy Community or Euratom. The new members will be joining all three of these groups when they accede to the EC.

The accession treaties between the EC and the new members are scheduled to take effect on Jan. 1, 1973. Ratification by Norway, however, appears unlikely. In a popular referendum held Sept. 24-25, Norwegians rejected EC membership by a margin of 54

to 46 percent. Although the referendum is not binding on the Norwegian Parliament, it is almost certain that the Parliament will follow the referendum results when it considers ratification of the accession treaty later this fall.

Denmark held a popular referendum on Oct. 2 in which the Danes voted by almost 2 to 1 in favor of entering the Community. In the United Kingdom, legislation for ratification cleared Parliament on Sept. 20 and is expected to receive the formality of Royal assent on Oct. 17. Ireland has already concluded the ratification process.

If one or more of the applicants fails to ratify by the end of 1972, as appears likely, the treaties between the EC and the ratifying applicant countries will still take effect Jan. 1, 1973.

## Market growth in enlarged EC

The enlarged Community will be a powerful economic unit with a population of some 260 million and a GNP approaching $703 billion. It will be second in gross national product only to the United States and first in value of world trade. The EC as presently constituted exports a large percentage of its national product, about 10 percent internally to other EC members, and about 10 percent externally to non-EC countries.

A large part of external trade for both present and prospective EC members is with the United States. In 1971 the EC of Six bought $8.4 billion in exports from the United States, and the United States imported $7.5 billion from the EC. Adding the applicant countries' trade (excluding Norway) with the United States in 1971 to these totals, the EC of Nine would have bought $11.2 billion from and sold $10.4 billion to the United States.

## Basic terms of EEC accession

The terms of agreement with the applicants call for a five-year transition period to implement their customs union. For industrial products, tariffs between old and new member states will be reduced in five equal steps of 20 percent between April 1, 1973, and July 1, 1977. (The three intermediate cuts will be made on Jan. 1 of 1974, 1975 and 1976.) Between Jan. 1, 1974, and July 1, 1977, the applicants will gradually adopt the EEC's Common External Tariff in place of their own tariffs. Forty percent of the alignment will be made Jan. 1, 1974, with 20 percent each on Jan. 1, 1975 and 1976 and July 1, 1977.

As for agriculture, the new members will adopt the Community's market organization rules for products subject to the Common Agricultural Policy. Domestic price supports or intervention prices will be adopted in six stages between 1973 and Dec. 31, 1977. For farm products not subject to intervention price adjustments, customs duties between old and new members will be reduced by one fifth at the beginning of each marketing year.

In the field of capital movements, consultations will be held between new members and the EC on applying measures for capital liberalization and easing of restrictions.

## Foreign Trade, European Community, 1971

*Billions of dollars*

| | Total Exports[2] | Total Imports[2] |
|---|---|---|
| **EC of Six**[1] | **100.9** | **99.8** |
| France | 20.5 | 21.2 |
| Germany | 39.0 | 34.5 |
| Belgium-Luxembourg | 12.4 | 12.8 |
| Italy | 15.1 | 15.8 |
| Netherlands | 13.9 | 15.5 |
| **EC of Nine** | **128.2** | **130.2** |
| United Kingdom | 22.3 | 24.0 |
| Ireland | 1.3 | 1.8 |
| Denmark | 3.7 | 4.6 |
| **United States** | **43.6** | **45.6** |
| **Japan** | **24.1** | **19.7** |

Source: Official foreign trade publications of the individual countries.
[1] Including intra-EEC trade.
[2] Exports are f.o.b.; imports are c.i.f. except U.S. imports which are f.o.b.

## Preferential agreements

The preferential trade agreements currently maintained by both the EEC and the applicant countries will all be affected by the enlargement. Some of the agreements will be extended, some phased out, and new ones may be negotiated.

From the date of accession the applicant countries will adopt the Community's agreements with Greece, Turkey, Tunisia, Morocco, Israel, Spain, Malta, and any Mediterranean country that concludes an agreement with the EEC prior to January 1973. Transitional measures for adjusting to the preferential agreements by the new members have not yet been worked out.

The Community has offered special arrangements to 20 developing countries that are currently members of the British Commonwealth. These predominantly African countries are expected to begin negotiations with the enlarged Community in 1973 on alternative proposals for association. Their

association arrangements may be patterned after the existing Arusha Agreement with East Africa or the Yaounde Agreement with the 19 members of the Associated African and Malagasy States, or may take another form of preferential trade agreement.

As for the developing Commonwealth countries in Asia (Ceylon, India, Malaysia, Pakistan, and Singapore), the accession treaty states that the Community is ready to examine trade problems that may arise, but does not offer any type of formal associated status. These Asian Commonwealth countries already receive generalized tariff preferences from the Community.

Since the Treaty includes no provisions for Canada, South Africa, Australia, or New Zealand (with the exception of those for cheese and butter), these countries will lose their Commonwealth preferential access to the U.K. market. It does not appear that the EC will enter into any special arrangements with these developed countries.

By Jan. 1, 1974, the applicants are scheduled to adopt the Community's generalized tariff preference scheme for developing countries. Under the EEC's scheme duty-free entry is granted to manufactured, semi-manufactured, and a small number of agricultural imports from most developing countries up to certain pre-established quantitative limits. The applicant countries currently apply their own generalized preference schemes and will continue to do so until they adopt the EEC's scheme.

## Non-applicant EFTA members

Enlargement of the Common Market will significantly affect the European Free Trade Association. Set-up in 1959, EFTA was designed as a trade counter-balance by European countries that were either unwilling or unable to join the more comprehensive economic and political integration efforts of the Common Market.

As it appeared that three of EFTA's members, the U.K., Denmark, and Norway, were ready to join the EC, both applicants and non-applicants were eager to maintain current tariff-free trade in industrial products within EFTA.

After several months of intensive negotiations, the Community and five of the six EFTA non-applicants on July 22, 1972, signed agreements leading to free trade in industrial products by 1977. These non-applicant signatories were Austria, Iceland, Portugal, Sweden, and Switzerland. (With the probable rejection of the EC accession treaty by Norway, this country may seek a free-trade agreement with the EEC generally comparable to the non-applicant agreements.)

Finland has not formally signed its agreement with the EEC. The Finnish agreement has been drawn up and initialled, but the minority Finnish Government resigned so that a majority coalition could be formed to sign this important agreement.

The six non-applicant agreements are broadly similar in that they all provide for generally duty-free trade in industrial products by 1977. However, each agreement has product exceptions and longer transition periods for certain sensitive products, including paper and paper products, and differing arrangements for agricultural products.

The first stage of tariff reductions between the EEC and the non-applicants will take place April 1, 1973, the same date that applicant reductions begin. The transition period (1973-77) and schedule of tariff reductions for applicants and non-applicants are also the same, except that the transition period of Portugal and Iceland has been extended to Jan. 1, 1980.

All of the non-applicant agreements include a new system of origin requirements for imported raw materials, parts, or components. The definition of origin is one of the critical elements of a free-trade area, since imported material or components may acquire "origin" status by meeting the appropriate specifications, and then be duty free when reexported to another member of the trade area.

The origin system contained in the EFTA non-applicant agreements differs from the rules of origin requirements that EFTA currently employs. In general, goods manufactured in EFTA are now accepted as being of EFTA origin if either 1) at least 50 per-

### Tariff Reduction Schedule For EC Applicant Nations

| Date | Reduction[1] | Alignment to CXT[2] |
|---|---|---|
| | Percent | Percent |
| April 1, 1973 | 20 | ... |
| Jan. 1, 1974 | 20 | 40 |
| Jan. 1, 1975 | 20 | 20 |
| Jan. 1, 1976 | 20 | 20 |
| July 1, 1977 | 20 | 20 |
| | 100 | 100 |

[1] Percentage reduction of tariffs between the Six and the new members.
[2] Percentage alignment to the Common External Tariff by the new members.

cent of their value is added in EFTA, or 2) certain manufacturing processes have been performed on them in EFTA.

Under the new system negotiated between the Community and the non-applicants, the primary origin requirement will be that a product imported into the free-trade area must undergo a process which results in a change in tariff classification in order to qualify as an "origin" product for reexport.

In addition, special content requirements must be satisfied for some products. These rules may operate to limit the use of materials and component parts coming from nonmember countries.

## GATT examination

Article XXIV of the General Agreement on Tariffs and Trade (GATT) recognizes the desirability of closer integration of national economies by authorizing free-trade areas and customs unions as an exception to the most-favored-nation principle. Article XXIV states that such arrangements must cover substantially all trade between the parties involved and must provide a plan and schedule to achieve a full customs union or free-trade area within a reasonable length of time.

GATT has set up a Working Party specifically to examine the EEC enlargement treaty and contingent arrangements and to recommend channels to deal with countries whose exports are adversely affected. The EEC enlargement treaty appears to have a reasonable plan and schedule to achieve elimination of duties. The EC/EFTA non-applicant agreements will be submitted to GATT in the near future for examination.

Third countries whose export interests are found to be adversely affected may seek compensation in accordance with remedial procedures of GATT. Compensation could come in the form of tariff cuts by the EEC and the non-applicants on products of commercial interest to the affected exporting country. The United States received compensation from the EEC following its formation because adoption of a Common External Tariff resulted in higher tariffs on some products than had previously been applied by the individual member countries of the EEC.

## U.S. trade outlook

The United States has encouraged the development of European integration and we continue to support it today. A strong, united Europe holds obvious political benefits.

### GNP For 1971
#### At Current Prices

*Billions of dollars*

| | |
|---|---|
| **European Community** | **563.0** |
| France | 176.6 |
| Germany | 217.3 |
| Belgium | 28.2 |
| Luxembourg | 1.1 |
| Netherlands | 39.1 |
| Italy | 100.7 |
| **Enlarged Community** | **702.5** |
| United Kingdom | 116.6 |
| Ireland | 4.5 |
| Denmark | 18.4 |
| **United States** | **1,046.8** |
| **Japan** | **226.2** |

Source: Office of International Commercial Relations, U.S. Department of Commerce.

On the economic side, integration resulted in intra-Community trade expanding far more rapidly than Community trade with outsiders. It is uncertain whether enlargement will have a comparable growth stimulating effect. Nor is it clear to what extent the tariff discrimination inherent in the arrangements will disadvantage U.S. exports, as many factors other than price determine the competitiveness of American products in the EEC market.

Enlargement can be expected to activate movement on a multilateral basis toward reappraisal of international rules of business competition, including international safeguards, multinational corporations, anti-trust policies, and arrangements to assist developing countries.

Much will depend upon the economic and political decisions to emerge from the EC in the months and years ahead in determining the full impact of enlargement and the policies to be pursued by the United States in protecting its legitimate trade interests.

Both the United States and the EC agreed in a joint declaration of February 1972 to prepare for and to initiate comprehensive and global trade negotiations in 1973. The recent annual meeting of the International Monetary Fund highlighted the need for a revised international monetary system. Such discussions and negotiations carried out in a spirit of cooperative relationships could contribute measurably to reducing economic and commercial frictions that might otherwise develop from Community enlargement.

*—Bureau of International Commerce*

# Timing, Policy, Security Hamper Most Solutions To Energy Crisis

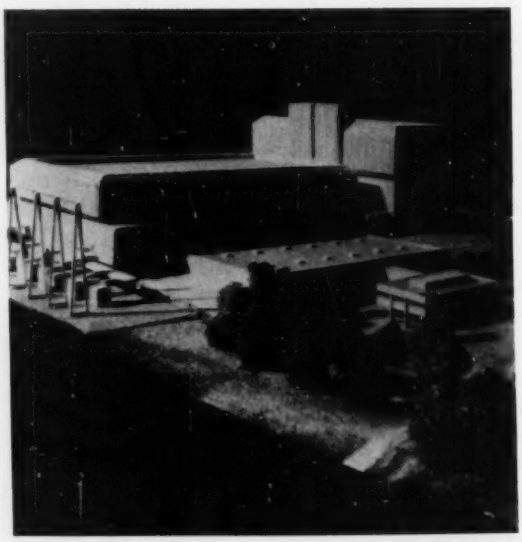
## *Power Gap Facing Nation In Resources Next 15 Years Can Be Filled By Rational Imports*

"Our real energy supply problem is one of timing, of national economic policy and of national security."

And, a rational import program coupled with the development of domestic resources will at least head the United States down the road away from an "energy crisis."

Andrew E. Gibson, Assistant Secretary of Commerce for Domestic and International Business, so defined one of the most pressing concerns of an "energy oriented" economy—where this Nation will get its energy supply for the next 10-15 years until new domestic sources can be developed.

With the development of domestic resources lagging behind needs, with the electric power industry—the most versatile form of energy—saddled with heavy outlays for pollution abatement, and with every energy market increasing its needs, where will the U.S. turn?



**NUCLEAR POWER**—*A nuclear power installation on Tennessee River in Northern Alabama is one of the Tennessee Valley Authority's power generation efforts. More research is needed in this and other promising areas of power generation in the U.S.*

Gibson expresses the opinion that the Nation's energy problems should be viewed predominantly as "supply" problems and its energy policies developed accordingly.

## Energy-oriented

For many reasons, not the least of which that this country has an "energy-oriented" economy, attacking the "demand" side of the energy problem is far less effective than attacking the supply side. Short of asking or requiring Americans to curtail use of automobiles, air conditioners etc., both economically and politically unacceptable demand reduction will not have a significant impact on the energy problem.

Consumption aspects of the problem are:

In 1970, the U.S. consumption of energy from all available sources was 69 quadrillion BTU's or the equivalent of 12 billion barrels of oil. That consumption was one and one half times the level in 1960 and twice the level of 1950.

## Consumption double

In 1985, national consumption will double again to 134 quadrillion BTU's or the equivalent of 23 billion barrels of oil. And by the year 2000, it is projected to triple.

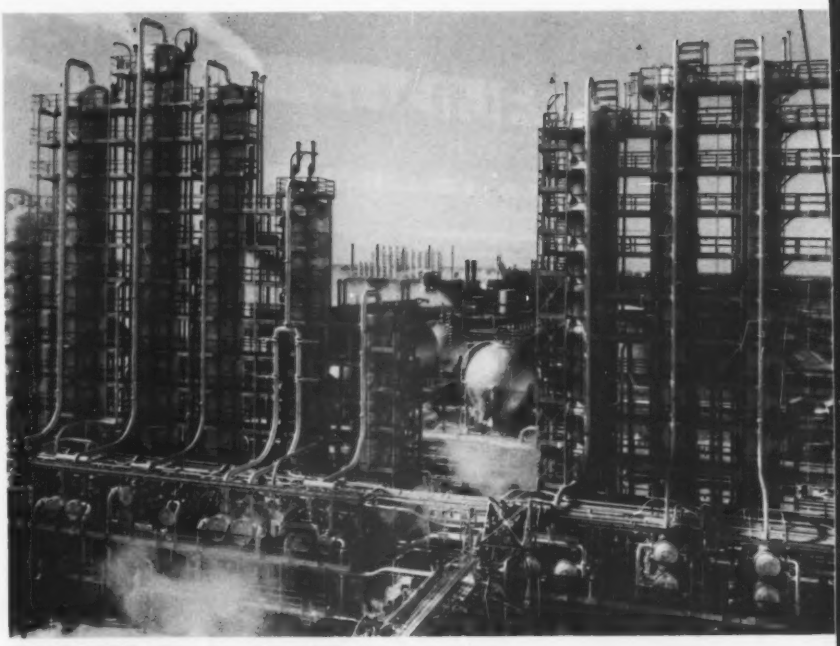
This rapid growth in consumption is not just the product of a growing population, Gibson says.

If it were, per capita consumption would remain roughly constant. Instead, however, per capita consumption is anticipated to increase from 337 to 563 million BTU's between 1970 and 1985 and to 720 million BTU's by the year 2000.

What is our basic energy supply problem?

Fortunately, explains Gibson, it is not that the world is running out of oil and gas. Geologists assure us that world fossil fuel reserves are more than adequate to meet our requirements for many decades to come. Furthermore, it is not that the United States is running out of oil, gas and coal. Again, geologists assure us that there are deposits of oil, gas and coal in this country—onshore and offshore—sufficiently to meet national requirements far into the future.

"We are also assured that there are new sources of energy now being developed," Gibson explains further, "Sources such as nuclear, solar and geothermal, that will carry us into the indefinite future—at a reasonable energy prices. All of this is true, even taking into account the environmental considerations which have now begun to influence heavily our patterns of energy consumption."



PETROLEUM PLANT—*A petroleum plant, shown in this picture furnished by the American Petroleum Institute, is illustrative of the complexity of an industry which must constantly expand its capacity to meet growing energy needs in this country.*

Gibson points out that while domestic reserves of fossil fuels and potential new domestic resources are evidently plentiful, they have not been developed and are not being developed rapidly enough to meet national requirements.

## Resources development

Moreover, even if the U.S. began today to develop these resources they cannot be developed in sufficient quantities to meet the requirements of the next 10 to 15 years.

"True," Gibson asserts, "if we make a massive capital investment to develop these resources on an accelerated basis, we can probably increase our energy supplies significantly in the near term."

"The cost required for any major acceleration of development, however, would so distort the pricing of domestic energy and thereby so reduce the demand that, again our national requirements would not be met."

The problem really boils down to one of "plenty tomorrow, not enough today," Gibson continues.

In turning to imports the Nation faces two frustrations—a drain of dollars to foreign countries and jeopardy to national security.

POWER USER—*Power is needed to operate this central computer which controls the transporting of ore from the docks to the blast furnace at Bethlehem Steel Corp.'s Burns Harbor, Ind., plant.*

Statistics show that, if, as some project, the U.S. has to import 50 percent of its petroleum requirements (that is, five billion barrels of oil) and 10 percent of its gas requirements (that is, the equivalent of 430 million barrels of oil) by 1985, the annual balance of payments deficit for energy will be an overwhelming $20-25 billion per year.

## Petroleum imports

Further, the U.S. East Coast is already more than 50 percent dependent on petroleum imports for its basic petroleum needs and if the petroleum exporting countries decided tomorrow to shut off supply or drastically increase prices, there is no question that the security of the U.S. would be seriously endangered, Gibson states.

The question of imports is further complicated by lack of a deepwater terminal in the North Atlantic. Environmentalists, fearing oil spills, have questioned plans and delayed action on the badly needed terminal.

These make the preponderance priorities in the development of existing and new domestic resources.

Research and development, Gibson believes, must be done with complete recognition of the fact that adequate supplies of clean domestic energy at reasonable prices cannot be made available tomorrow—and that in the short run, large energy imports will be necessary.

"Our acceptance of the need to import energy for the short run—and by short run we mean the next 10 to 15 years, perhaps 20—shouldn't of course, be a blind acceptance," Gibson added.

## Many unrelated sources

He says effort should be made to mitigate the national security and economic problems attendant to reliance on foreign energy sources—decreasing the risk of supply disruption by developing as many unrelated sources of supply as possible.

Very serious thought must be given to tapping the vast oil and gas reserves of the Soviet Union, for example, in an effort to spread the risk of disruption.

On the economic side, Gibson adds further that the U.S. should encourage energy imports from Nations that are willing to spend the dollars earned from sale of energy to the U.S. on U.S. goods and services. Here again, the Soviet Union is potentially a very attractive source.

"As Secretary Peterson emphasized in his August 1972 report on the first meeting of the U.S.-Soviet Joint Commercial Commission," Gibson recalls, "the opportunity for sale of American goods and services to the Soviet Union are enormous."

"By the same token, Soviet reserves of gas appear to be more than adequate to accommodate sizable LNG import programs, and the Soviets seem willing to construct their gas capture and liquefaction systems with U.S. materials."

If the remaining obstacles to a U.S.-Soviet trade agreement can be overcome and if a gas import project consistent with the country's national security can be arranged, there is great potential for increasing the Nation's short run energy supply without serious balance of payments impact, Gibson states further.

In spreading the risk of disruption, the Commerce Assistant Secretary concludes that the U.S. should actively reexplore the possibility of tapping Canada's energy resources on a long-range basis. Finally, the Nation should make every effort to encourage construction and use of American-flag vessels to carry fuel imports.

# DOMESTIC BUSINESS REPORT

- **RRs spend to eliminate pollution**
- **Air, not money, in tire inflation**
- **Government is doing its share**
- **Fewer children—smaller youth market**
- **Procurement needs matched to minority vendors**

## *U.S. Railroads Continue Pollution Fight*

American railroads, while currently responsible for only about 1 percent of the total national air-pollutant emissions from all sources, are, nevertheless, continuing and expanding their battle against the industry's environmental problems.

Millions of dollars are being spent by the railroads to control and eliminate pollution. Between 1968 and 1970 alone, member railroads of the Association of American Railroads spent more than $55 million on pollution abatement measures and equipment.

And annually, more than $10 million of the railroad companies' budgets is allocated just for operating expenditures of pollution abatement equipment.

But in their fight against pollution, notes the new report of the National Industrial Pollution Control Council's Sub-Council on Railroads and Rail Equipment, "railroads need assistance from all levels of government in supporting research that can lead to new concepts for methods of achieving effective pollution abatement and environmental control."

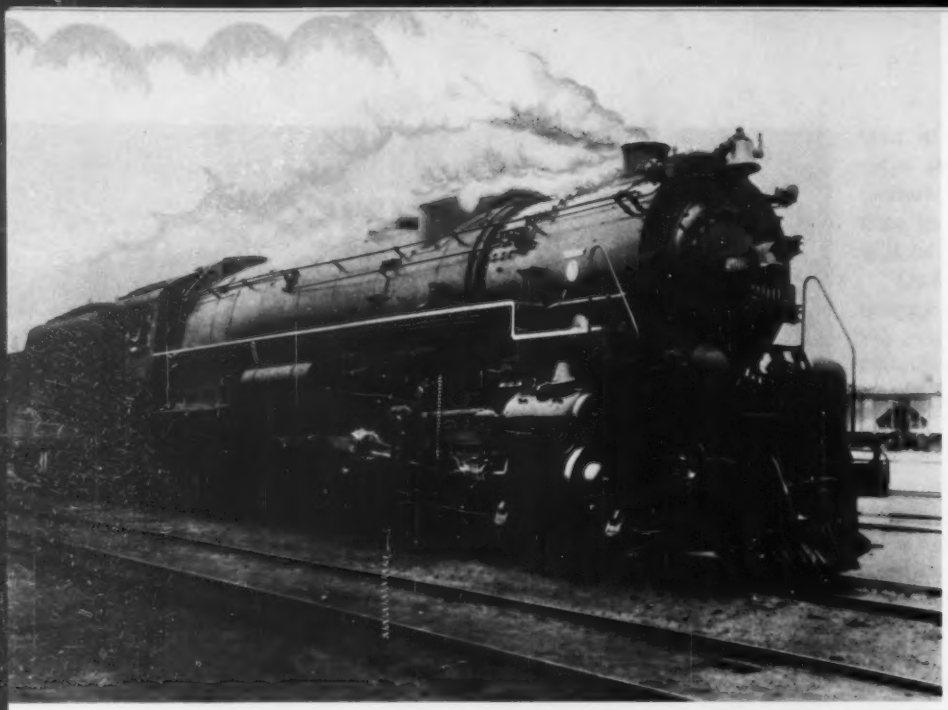
### Problems to face

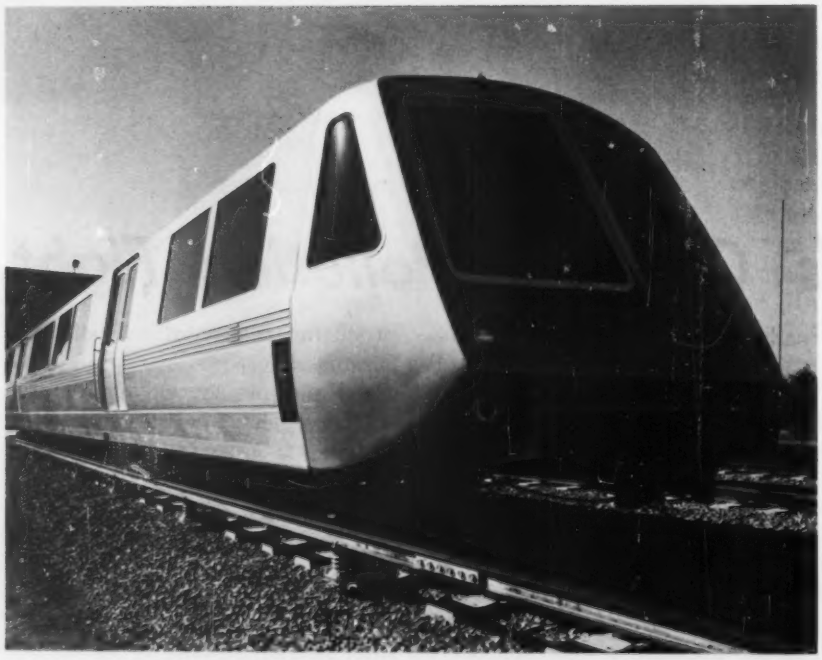
The report, "Railroads and the Environment in Rail Freight Operations" presents a comprehensive overview of the environmental problems being faced today by the Nation's network of railroads in their freight hauling operations, and what the companies are doing to overcome them.

Headed by B. F. Biaggini, Jr., President of Southern Pacific Company, the NIPCC Sub-Council Report concludes that:

- The rail mode—a highly efficient means of transporting goods and people—has the advantage of producing relatively low pollution per ton mile.
- Railroads are engaged in research projects on diesel emissions, human waste disposal, noise abatement, right-of-way clearance, and related areas of pollution abatement to meet future control standards.
- Railroads could benefit from research and technical support from related industries and from educational and scientific organizations, as well as government, to achieve the maximum effectiveness in environmental control measures.

Historically, since its beginning in the 19th century, railroads have played an important part in the economic growth of the United States. The picturesque old steam engine locomotive chugged its way across the country, opening up the way to carry people and goods from coast to coast, pulling them





POLLUTION GONE—*An old Wabash mountain-type freight locomotive (top photo) with smokestack puffing, is shown with a modern railroad engine and cars (bottom photo) to illustrate railroad progress in eliminating air pollution. The modern engine runs pollution free, part of the industry's $10 million a year effort.*

in passenger and freight cars behind its massive power.

With the exception of a handful of locomotives maintained as tourist attractions, today the steam locomotive is a thing of the past, having been replaced by diesel-electric units that are cleaner, faster, and more efficient. These diesel-electric locomotives are expected to dominate railroad freight service for the next 10 years.

Since the establishing of the National Railroad Passenger Corporation (AMTRAK) placed the responsibility for intercity rail passenger traffic under that organization, it is with freight operation pollution control that the railroad industry is primarily involved.

It is with the diesel-electric units, therefore, that the Sub-Council and the railroad industry itself, is most concerned in the clean-up of its pollution problems.

Standards presently set by the Environmental Protection Agency to limit exhaust gaseous emission from 1973 model heavy-duty diesel engines land within the framework of the industry's capabilities to produce effective results.

The modifications to these regulations, however, which EPA proposes to announce shortly—probably along the lines taken by California—for application beginning in 1974, are expected to cause the railroad companies severe hardships.

"Existing high-horsepower diesel engines," the report states, "whether locomotive or truck, cannot meet the California 1975 standard, and it is not certain that diesel-engine manufacturers will be able to do so even with newly built engines."

## Few new engines

At that, the number of newly built engine purchases is expected to be small. Only about 4 percent of the locomotive fleet is new purchases in any given year and rebuilding has been insignificant.

This means that the existing fleets will continue to produce the major part of such emission for some years.

The report does point out, however, that the industry is "examining a variety of approaches to achieve the minimum feasible levels for all types of emissions from present locomotives, particularly through development of improved maintenance procedures."

The Sub-Council study also underlines the fact that existing regulations of smoke tend "to be based on the opacity of visible plumes, rather than the mass emissions of particular substances per unit volume of exhaust."

The NIPCC group expresses the view that the per-vehicle measurements need to take account of the plume diameter, viewing angle and background, in addition to its opacity. A study of the relationship between the readings produced by various smoke meters currently in use is presently being undertaken by the Association of American Railroads. The AAR's investigation objective is to promote rapid replacement of currently used subjective measurement systems by objective, consistently reproducible recording methods.

Other efforts are also underway on research projects to reduce further the present low levels of all diesel emission by a study of the diesel combustion cycle and by the development of improved maintenance procedures.

The Sub-Council does emphasize, moreover, that "due to the greater hauling capacity under load, a locomotive in transit generates only a small fraction of the particulates produced per ton-mile by a highway vehicle."

Control of engine air emissions is only one part of the railroad industry's pollution control fight. Other factors causing environmental problems, the report lists, include:

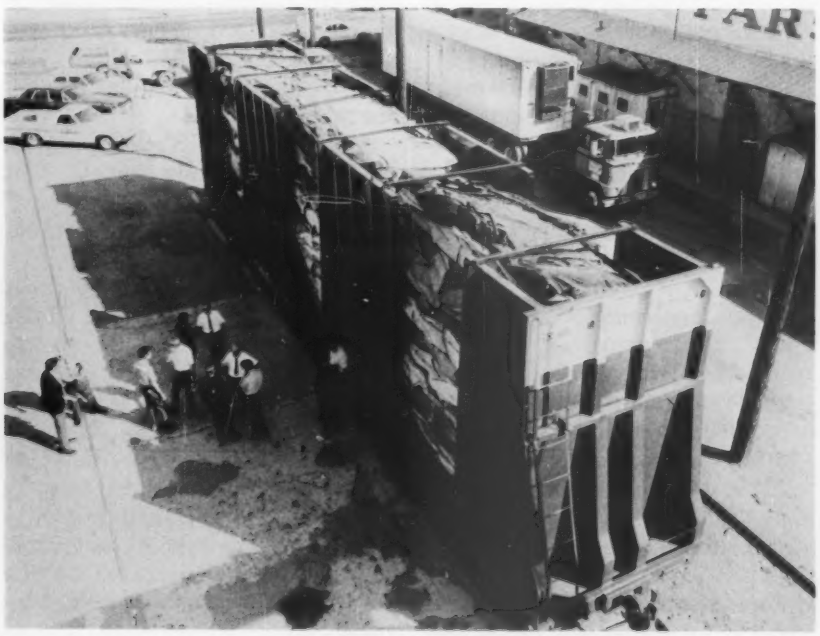
*Odors and other diesel emissions*—Even though the odors arising from railroad operations are currently within specified acceptable limits, they can be irritating to persons working around them or living near terminal sites where most of these odors are prevalent. The industry is working on a solution to this problem, but admits that "the technology for odor suppressions is not well advanced due to its relatively low priority in terms of current impact and the low probability of an economical technical breakthrough."

*Liquid pollution from normal operations* — Loss of cooling water, spills from refueling operations and the washing from tank car cleaning operations are listed as the three biggest problems resulting in liquid pollution from normal railroad operations. The most difficult of these is tank car washings but, perhaps, the worse offender to the environment is loss of cooling water.

The industry also recognizes that there are existing problems with fuel spillage at terminals, run-off and discharge from shops and facilities of fuel and lubricants as well as detergents and wash water from steam cleaning operations. All of these problems are receiving the industry's attention, with hopeful outlooks for future cleanups.

*Sanitary waste control* — Even though it is estimated that "total waste discharged on railroad trade is equal only to the sewage discharge of a city of 50,000 persons, railroad companies are still studying better ways of handling this sanitary waste more efficiently.

Other problems and possible solutions are listed in the NIPCC Sub-Council report. The industry is also involved with solving such pollution problems as litter, solid waste from operations, hazardous cargo, freight car dismantling, land use and noise from railroad operations. And in its summary, the report notes, "Railroads will continue to spend many millions of dollars each year in capital improvements and on operating programs to control pollution."



**POLLUTION FIGHTER**—*Junk cars (at left) which pollute the American landscape with their ugly hulks, await dismantling, crushing, and loading on a railroad car to be carried to a plant for recycling. Southern Pacific's specially designed freight car (at right) for handling scrap automobile hulks offers an effective and economical way to transport scrap.*

# Inflation In U.S. Automobile Tires Doesn't Necessarily Mean Dollars

Consumers could save millions of dollars a year in expense for passenger car tires and greatly increase safety, Under Secretary of Commerce James T. Lynn has asserted.

Lynn, in releasing a report on automobile tire inflation by the National Business Council for Consumer Affairs, said surveys show that a striking number of automobile tires are improperly inflated "thus decreasing tire tread mileage and increasing the risk of tire failures."

But, he predicted, help is on the way if industry and government act on recommendations contained in the NBCCA Product Safety Sub-Council Report — "Tire Inflation and the Consumer."

The NBCCA, a presidential advisory panel of more than 100 business executives who develop programs to respond to and anticipate consumer needs, recommended that:

• Corporations involved in the sale, servicing and use of passenger car tires should increase efforts to educate consumers on the importance of proper tire inflation.

• The Federal government should initiate and coordinate a continuing program to assure accurate readings on fixed air pressure measurement devices used in service stations and other business locations to inflate passenger car tires.

"Over and under inflation of tires," Lynn explained, "directly result in higher probabilities of tire sidewall failures and other failures which lower the average life of tires—sharply reducing mileage.

"This can cost consumers millions of dollars a year in unnecessary purchases of replacement tires."

For example, Americans will spend an estimated $4.9 billion this year alone to buy some 148 million new replacement tires, the Under Secretary of Commerce added. And, a 5 percent loss in tread wear amounts to a $250 million loss to the Nation's consumers.

"Proper maintenance of inflation pressures could substantially increase tire wear," he concluded.

Mrs. Ruth Handler, president of Mattel, Inc., and chairman of the NBCCA Product Safety Sub-Council which prepared the report, joined Under Secretary Lynn in a Washington press conference.

## Awareness void

Noting the lack of consumer awareness about tire inflation, Mrs. Handler said she was encouraged by the pledges from the affected industries—tire, automotive and petroleum—to join with the Council in undertaking a massive response on behalf of consumers.

"We must bring to consumers' attention the importance of maintaining correct tire inflation pressures and help provide the tools to do that," Mrs. Handler said.

"The situation would improve markedly if consumers obtained and used inexpensive hand pressure gauges on a regular basis," she added.

She noted that a National Bureau of Standards study showed that service station fixed air "towers" and other devices are often improperly calibrated.

"Even the informed and diligent car owner can be left with a false sense of confidence with respect to tire inflation unless air towers are properly calibrated," Mrs. Handler said.

Secretary of Commerce Peterson has called on the National Conference on Weights and Measures to take immediate steps to design appropriate programs based on the report's findings and recommendations.

Secretary Peterson is sending copies of the NBCCA report to chief executive officers of all major tire, automotive and petroleum and auto insurance companies asking for followup action.

**IMPROPER INFLATION** — *Tires that have been improperly inflated show wear sooner and unevenly and are a safety hazard as well as high priced.*

Lynn said pledges of support already have been received from the American Petroleum Institute, the Tire Industry Safety Council, the tire industry, the National Oil Jobbers Council, the Society of Independent Gasoline Marketers Association, the American Automobile Association and the Motor Vehicle Manufacturers Association.

"We are taking steps to provide copies of the report to the Nation's driver education teachers," he added.

"Proper tire inflation is one of the most neglected aspects of maintenance and care related to passenger automobiles in the United States," the Sub-Council report says.

It notes that underinflation causes extreme tire flexing and builds up excessive heat, running the risk of failure. It also causes rapid wear on the outer edges of the tread. Overinflation causes tires to run hard and subjects them to impact damage and weakening.

***The Nation's tire industry has pledged its full cooperation with the National Business Council for Consumer Affairs' program to help consumers get more mileage out of their tires, and promote safety, by proper inflation.***

***"The new program holds out promise of great benefits to all motorists in increased safety and economy," said Ross R. Ormsby, chairman of the Tire Industry Safety Council.***

***"The tire companies, of course, have been aware of the inflation problem, and working on it in various ways, for a long time," said Ormsby. "We are glad to have other interested groups now join us in a stepped-up program as a result of the NBCCA's work."***

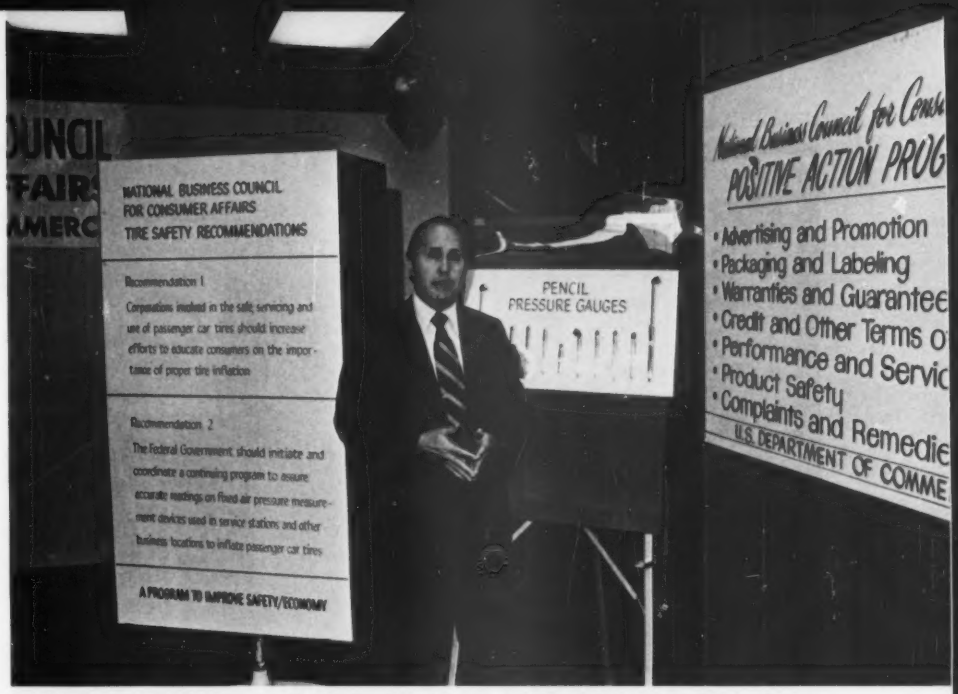
***The additional efforts of the tire companies will be coordinated through the Tire Industry Safety Council in Washington, Ormsby concluded.***

***Consumer awareness and attitudes on the subject are surely the most dominant factors in closing the gap.***

Overinflation also causes excessive wear in the center of the tread. Proper inflation gives full contact with the road.

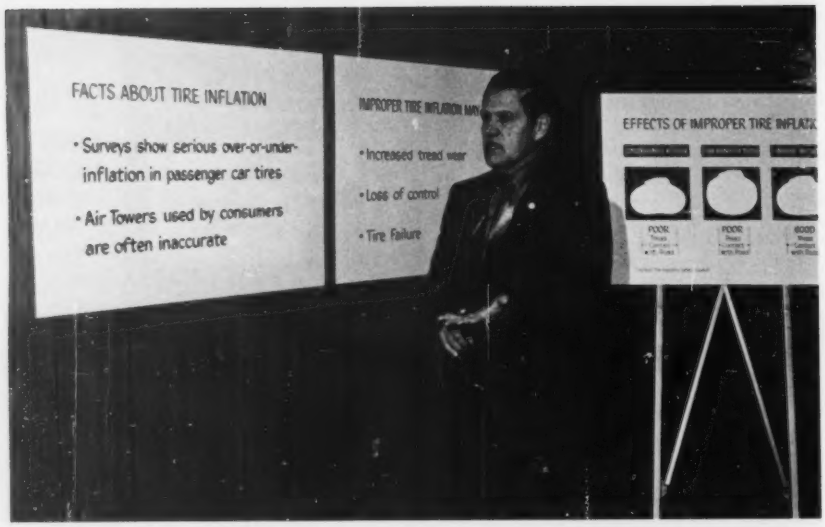
The Sub-Council report referred to recent studies which show:

- In one government survey, more than one of every four cars examined had at least one seriously underinflated tire (four pounds per square inch or more below the inflation pressure recommended for the vehicle).




**NCCA PLANS**—*William D. Lee, executive director of the National Business Council for Consumer Affairs, reviews the Council's project schedule at news conference.*

**REPORT DISCUSSED**—*Ruth Handler (right), president of Mattel, Inc., and chairman of the Product Safety Sub-Council, is shown discussing the report with James T. Lynn, Under Secretary of Commerce at the recent press conference.*


FACTS ABOUT TIRE INFLATION
• Surveys show serious over-or-under-inflation in passenger car tires
• Air Towers used by consumers are often inaccurate
• Increased tread wear
• Loss of control
• Tire Failure
EFFECTS OF IMPROPER TIRE INFLATI
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**TIRES AND CONSUMERS**—*Mickey Anderson of General Electric, who worked on the Sub-Council report discusses use of air towers and other means to measure tire inflation. Proper inflation can save consumer dollars and provide safety.*

• In a private study, about 80 percent of the vehicles checked had tires that were underinflated or overinflated by two pounds per square inch or more.

• Another corporate survey reported that 28.4 percent of 1,904 cars on lots throughout the country had one or more tires at four pounds per square inch or more under the recommended pressure.

• An additional survey reported that 11.5 percent of the cars examined were found to be below 24 pounds per square inch, which is the minimum inflation pressure recommended for tires in the majority of car owners manuals.

Of its recommendation on industry efforts, the Sub-Council said "At a minimum, this would include participation in the education and publicity needed at all levels to initiate and administer a continuing surveillance program."

However, the report states, this would not entirely solve the problem of inaccurate inflation. Consumer awareness and attitudes on the subject are surely the most dominant factors in closing the gap. Corporations involved in this market should do everything possible to highlight the significance of maintaining proper tire inflation in literature, care and use instructions, advertisements, and in any other ways which would communicate the facts of the matter to the Nation's consumers.

## Reliability need

"Companies which service or operate gasoline stations, automobile repair businesses, and other locations which use air towers and other fixed means of inflating vehicle tires should take steps to establish reliable mechanisms for the calibration of the inflation devices used," the report continues. "Service station operators and franchisers, in turn, should assign responsibility to their service personnel for regular checks on such devices."

Some inexpensive equipment to accomplish this purpose is now available on a commercial basis, and nationwide demand for this equipment should create a market which will make the necessary tools widely available at low cost and in reliable design.

Concerning the program it recommends be initiated by the Federal Government, the report states that the objectives can be accomplished by a joint effort of the Department of Commerce and the Department of Transportation.

The Commerce Department, through its Office of Weights and Measures, maintains continuing coordination and liaison with the state and local government weights and measures officials who would carry out the operational aspects of the project. The Department of Transportation has the major federal responsibility for traffic safety, and would be a logical participant at the Federal level. The Federal one-time implementation cost of this project is estimated to be approximately $100,000, a modest investment relative to the benefits which would accrue to the nation's consumers.

The Sub-Council requested the Departments of Commerce and Transportation to take the necessary steps to implement an air tower calibration program without delay. In addition, corporations whose activities are related to tire pressure are urged to aid these governmental efforts, and to take actions to improve consumer awareness of the importance of proper tire inflation.

—NBCCA

**AIR TOWER** — *An air tower pressure gauge is one instrument which needs improving in its accuracy as a means of measuring the air in automobile tires.*

# Federal Government Is To Be Praised For Its Minority Business Efforts, Says Black Organization's President

Government can no longer be criticized for not doing its part, says Berkeley G. Burrell, president of the National Business League, the Nation's oldest and largest minority business organization in the country.

Praising Commerce's Office of Minority Business Enterprise for its efforts in marshaling the resources and bringing technical assistance to minority businessmen on the local level, Burrell recalled his organization's successful efforts to pressure government into action on behalf of the Nation's minority businessmen in the pre-OMBE years.

The League's mission now, Burrell states, is to influence "those who can provide the resources and the markets to really bring minority businessmen into the mainstream of the economy.

Burrell, following the National Business League's 72nd annual convention in Dallas, envisions the organization evolving into a national trade association to lobby on behalf of the needs of minority businessmen, influencing the private sector to open up markets and resources—both financial and technical.

Government alone cannot do the job, Burrell asserts.

"Take the minority businessman's need for equity capital, for example," Burrell explains. "Except for MESBICs (Minority Enterprise Small Business Investment Companies) not much is filling this need. We must generate additional sources of capital in the form of more investment from the private sector."

For the NBL leader this is where the future lies for his 10,000-member organization. Burrell says the NBL will function as a national parent organization for numerous individual minority trade groups. He sees the new NBL coinciding with the maturity of minority businessmen as attitudes about minority businessmen's capabilities are changed and barriers to their participation in the Nation's economic system are removed.

## Restoring credibility

The NBL president is convinced that positive commitments to minority enterprise by America's business community are not an irrelevant adjunct to corporate policy, but that they constitute the principle means of strengthening the free enterprise system and restoring its credibility among minority Americans.

John L. Jenkins, Director of the Commerce Department's Office of Minority Business Enterprise, was among seven persons honored by the NBL convention. Jenkins received the J. C. Napier Government Man of the Year Award for demonstrating ability as a government official in an area of concern to small business.

Others were Eartha Mary Magdalene White, 95-year-old Doctor of Humanities, recipient of the NBL's highest honor, the Booker T. Washington Symbol of Service Award; H. Naylor Fitzhugh, vice president of Pepsi-Cola Co., recipient of the Robert Russa Moton Leadership Award for outstanding contribution in the field of business and education; Asa T. Spaulding, former president of North Carolina Mutual Life Insurance Co., largest black-owned insurance company in the country, recipient of the J. E. Walker Humanitarian Award for dedication to the development of minority financial institutions and humanitarian service.

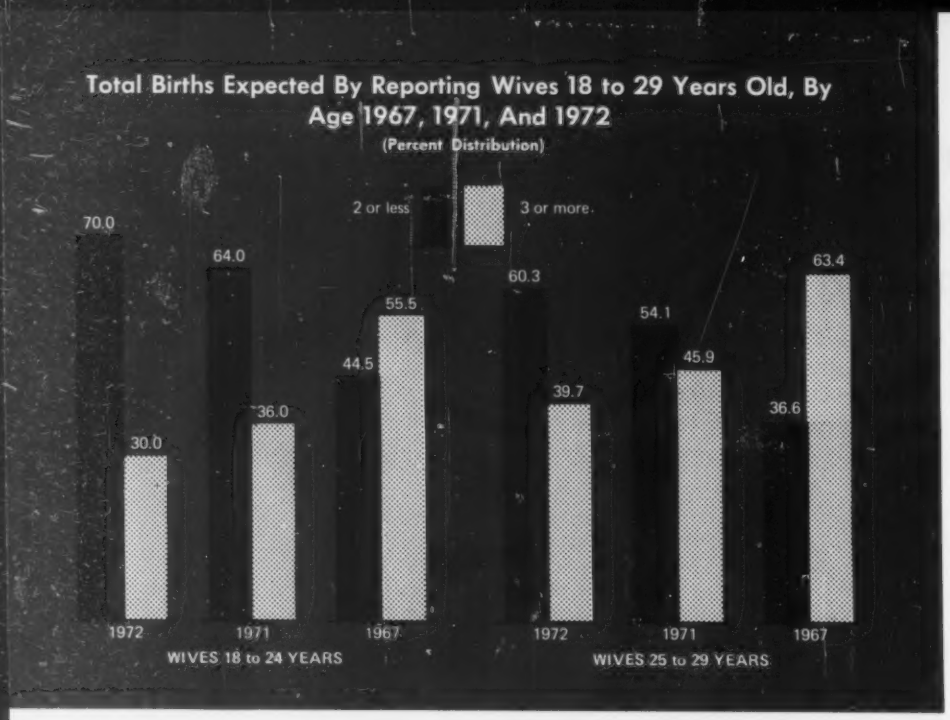
**Berkeley G. Burrell**
*President,*
*National Business League*

John H. Johnson, president of Johnson Publishing Co., Inc., recipient of the A. G. Gaston Businessman of the Year Award for grossing over $1 million; Dempsey J. Travis, president of Sivart Mortgage Co., the Nation's largest black-owned mortgage banking company recipient of the Horace Sudduth Special Award for success in land and real estate development; Ruby Burrows McZier, lawyer, educator, consultant and president of Resources, Inc., recipient of the Eartha M. M. White Women's Achievement Award for an outstanding businesswoman who has contributed in her area of expertise. *—OMBE*

## Ombudsman For Business

***Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints —the Commerce Department Ombudsman for Business.***

***All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.***




# Young Wives Want Fewer Children—Future Youth Markets May Decline

A continuing decline in birth expectations of wives 18 to 24 years old is reflected in a new census survey.

This decline also signals a further decrease in the future of the young and teenage markets for American business. With the previous warning through Census surveys that the U.S. birthrate is on the wane, many U.S. businesses have already altered their plans to appeal to a somewhat older consumer. The further decline may mean business may have to shift its plans even more in this direction.

The average number of births expected by the 18 to 24 year age group decreased from 2.9 in 1967 to 2.4 in 1971, and to 2.3 in 1972.

Seventy percent of wives 18 to 24 years old currently expect to have two children at the most. In 1971 this figure was 64 percent; in 1967, 44 percent. At the same time, the proportion of young wives expecting four or more births dropped from 26 percent in 1967 to 12 percent in 1971, and to 9 percent in 1972.

These birth expectations data come from a national survey conducted in June by the Census Bureau. The study was supported by the National Institute of Child Health and Human Development, National Institutes of Health.

The survey shows that both the timing pattern of childbearing, as well as the expected size of family, are influenced by whether or not the wife has attended college. This effect is illustrated by wives in the 22 to 24 age group. Those who had not graduated from high school had an average of 2.0 children at the time of the survey. These women expected an additional 0.7 births, meaning they had already completed about 75 percent of their expected total of 2.7 births. Wives with one or more years of college had borne an average of only 0.5 children, expected an additional 1.7 births, and had completed only about 25 percent of their expected total of 2.2 births at the time of the suvey.

The report notes there is difficulty in generalizing about birth expectations from survey data for several reasons. One is the reliability of data, since birth expectations are subject to change. Women with lower educational levels are more likely to exceed their reported birth expectations—and a substantial proportion of women who married young have low educational attainment.

## Young wives answer

It also points out that the survey answers come from young wives—and that about half of all women 18 to 24 are still single, and may well have different ideas about the number of children they expect to have. In addition, women presently under age 18 will be in their prime childbearing ages in a few years, and their birth expectations are unknown.

Assuming the survey data are essentially correct, the report concluded that the latest birth expectations are potentially very significant.

In the 1960 *Growth Of American Families* study, wives expected an average of 3.1 children. It now appears that all women who were 18 to 24 at the time (those born between 1936 and 1942) will complete their childbearing with an average of about 2.9 births, or 0.2 less than expected by wives in 1960. If the same differential of 0.2 births less were to occur in the case of young wives who answered the 1972 survey, these women would complete their childbearing with an average of about 2.1 births per women. This figure approximates the fertility level required for the population to eventually reach zero growth, in the absence of immigration.

Copies of *Birth Expectations and Fertility: June 1972*, Series P-20, No. 240 are available for 10 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 20402, or from Commerce Department field offices in major cities.

*—Census Bureau*

## New Program Equates Private Sector Needs To Firm Capabilities

A new program which matches minority entrepreneurs with procurement needs of major private corporations across the country has been developed by the U.S. Small Business Administration.

The Minority Vendors Program, an expansion of SBA's Minority Enterprise program, is the Agency's newest project created to assist minority businessmen into the nation's economic mainstream.

### Program objectives

Arthur McZier, SBA's Assistant Administrator for Minority Enterprise, explained that objectives of the program, which utilizes a central computerized system, are:

- To identify minority businesses capable of supplying goods or services to major corporations interested in doing business with minority firms;
- To develop specialized programs of assistance to overcome minority firm deficiencies as identified by large corporations seeking to purchase from them; and
- To identify new business venture opportunities from the minority business community to engage in as a result of the use of the program.

The program will be in full operation in November. The requesting firm will identify the product they wish to buy and the location in which it must be delivered.

SBA will perform the computer search, make the match, and send to the requesting firm a listing of those minority vendors in the area capable of providing the goods or services. The firm will then decide which vendors it wishes to contact.

"We are hopeful," McZier stated, "that this program will increase the minority business community's share of the $350 billion market for goods and services purchased yearly by the private sector economy."

## Calendar For Businessmen

**Oct. 16-20 — Sarasota, Fla.** — National Congress of American Indians annual meeting. For information, NCAI, Washington, D.C. Phone: 202-223-4155.

**Oct. 22-26—Miami**—American Association of Port Authorities annual convention. Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, will speak on Oct. 23.

**Oct. 29-Nov. 3—Chapel Hill, N.C.**—Basic Industrial Development Course accredited by AIDC and limited to North Carolina residents. For information, Robert E. Leak, Administrator, Division of Commerce and Industry, Department of Conservation and Development, Raleigh. Phone: 919-829-7651.

**Nov. 9-11—Washington, D. C.**—Southern Economic Asociation meeting at Washington-Hilton Hotel. Registration can be made through the Association at the College of Business Administration, Oklahoma State University, Stillwater, Okla., 74074.

**Nov. 16 — Chicago** — Institute of Gas Technology Symposium. Howard F. Casey, Deputy Assistant Secretary of Commerce for Maritime Affairs, will be main speaker.

**Nov. 16—New York**—American Institute of Marine Underwriters dinner. Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, speaker.

**Nov. 16-17—New York**—80th annual meeting of the Society of Naval Architects and Marine Engineers.

**Dec. 5—Columbia, S. C.**—Industrial Developers Association. For information, Charlotte Fielder, State Development Board. Phone: 803-758-3145.

**Dec. 6—Washington, D. C.**—Shipbuilders Council, Board of Directors luncheon. Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, will be main speaker.

**Dec. 28-30 — Toronto, Canada** — American Economic Association. For information, Rendigs Sels, 1313 21st Ave., Nashville. Phone: 615-332-2595.

## *Pattern In Population Moves Shows In Study*

A total of 47,149 persons of retirement age moved from metropolitan New York City to the Miami-Miami Beach area between 1965 and 1970, while only 7,121 persons of all ages moved from Greater Miami to New York City.

Altogether, 88,643 persons 65 years old and over left metropolitan New York City during the five-year span, and 14,329 in the same age bracket moved there.

This is one example of information in a new Census Bureau report that details the migration flow among the 50 states during the 1965-1970 period. The report pinpoints the place-to-place migration. It shows the origin and destination of movers between the United States' 510 State Economic Areas.

State Economic Areas are subdivisions of states made up of either single counties or groups of counties having similar social and economic characteristics.

Florida and California, boasting equally attractive climates, registered a relatively close population exchange. In the five years ended in 1970, 54,986 Floridians moved to California and 50,744 Californians moved to the Sunshine State.

Copies of "Migration Between State Economic Areas," PC (2)-2E, are $3.00 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce Department field offices.

# SCIENCE & TECHNOLOGY REPORT

- Data buoys in Arctic may benefit future forecasting
- Sea advisory group sees problems needing action
- National energy research commitments seen needed
- Inventors council plans seminar
- Patents of special interest

## *Trade Plus Seen In Metrology Membership*

The United States in recent weeks has taken a significant step that holds out hope for expanding the nation's foreign trade, particularly in types of goods such as instruments. The action offers also the prospect of forestalling the widespread adoption of requirements for standards that could adversely affect U.S. exports.

These are the basic advantages seen in joining the International Organization for Legal Metrology (IOLM), a group concerned with the promotion of standards for instruments and measurement techniques involved in the legal determination of quantity and quality.

Metrology is the science of weights and measures. It becomes legal metrology when it is related to the enforcement by governments of laws establishing standards in these areas. IOLM does not attempt to make international laws governing weights and measures. But it recommends specific actions in this field to member goverments, and under Article VIII of the organization's constitution member governments "shall be morally obligated to implement these decisions as far as possible."

The U.S. becomes the thirty-seventh nation to join IOLM, which was set up in 1955. Other members include the nation's leading trading partners, Russia, several Eastern European countries, and a number of developing nations.

### General responsibility

Under the arrangements for U.S. participation, the Commerce Department is assigned general responsibility for program implementation and direction. Within the Department, the National Bureau of Standards is in charge of developing U.S. positions for technical matter arising in IOLM. The Department of State has coordinating and budgetary responsibilities, and in collaboration with the Commerce Department accredits U.S. representatives to IOLM meetings.

Dr. Lawrence M. Kushner, Acting Director of the National Bureau of Standards, has been nominated by Commerce as the first U.S. representative to the IOLM. William E. Andrus, Jr., Program Manager for Engineering and Information Processing Standards, NBS, has also been nominated as the first U.S. representative to the International Committee of the IOLM which conducts the business of the organization between meetings of the conference. Dr. Kushner and a four-man delegation will represent the U.S. at the fourth IOLM conference to be held in London October 23-28 at the invitation of the British Government.

The primary task of the U.S. representatives at this conference, it is explained, will be to catch up on where IOLM now stands in its formulation of weights and measures standards for member nations.

IOLM has made 19 recommendations for standards for a wide range of measuring instruments and equipment. The recommendations, some of them highly technical in nature, are now being studied

by specialists at the National Bureau of Standards to determine their application and effect. The U.S. also would like to ascertain what countries have adopted these recommendations or may be planning to do so.

The IOLM recommendations are developed by individual working groups. There are about 68 of these groups dealing with a large variety of technical fields. U.S. representatives will attempt to gain detailed information about these groups and determine the ones in which they are primarily interested.

By participating in the IOLM deliberations, and learning about its actions and the direction of its efforts, the U.S. delegates hope to prevent the promotion of standards

**Dr. Lawrence M. Kushner**
*Acting Director,*
*National Bureau of Standards*

that would be detrimental to U.S. exports and at the same time to improve opportunities for trade and thereby help the nation's balance of payments position. Other benefits include bringing U.S. influence to bear on behalf of the adoption of model laws and uniform procedures by developing countries to avert being placed at a disadvantage in this market.

Because the U.S. has not been a member of IOLM, some of its recommendations have not recognized this country's technology and thus have hampered sale of U.S. measuring equipment in foreign markets. The value of U.S. instruments affected by IOLM recommendations has been estimated by Richard O. Simpson, Acting Assistant Secretary of Commerce for Science and Technology, at $400 million a year, about half of the total value of instruments sold abroad each year. But since the recommendations also govern the sale of many other products in world marketplaces, the total effect is said to be much greater.

Even minor variations in the specifications for weighing and measuring devices, it is explained, make it difficult for U.S. producers to compete in world markets. An example cited is the IOLM recommendation for clinical thermometers requiring a centigrade scale of 35.5 to 42 compared to the U.S. standard of 35 to 41. This recommendation also calls for a two-color thread imbedded in the glass to identify the manufacturer and the type of glass.

## Design requirements

Simpson has explained that the potentially adverse nature of IOLM recommendations takes many forms. As an example, he points to specific design requirements that eliminate U.S. forms in construction. He gives two other illustrations.

- A requirement that product approval be obtained before an item can be marketed in the country in question.
- A provision that a product may be tested for up to two years to assure that it maintains its performance.

Last April 11, President Nixon transmitted the IOLM convention to the Senate with a request that it give its advice and consent to U.S. membership. Recalling that the U.S. had been an interested observer in the organization's work, the President said he believed membership "would now be of clear advantage" to the nation.

"As the world's largest trading nation," he said, "and as a world leader in the standards field, we would be better able to assume a positive role in the setting of international standards for measurements and, in so doing, expand our international trade."

The Senate on August 11 ratified the convention by a vote of 79 to 0.

The IOLM convention has an open accession clause, so that the U.S. has been free to join during the 17 years of the organization's existence. Certain European nations that have been members have

**Richard O. Simpson**
*Acting Assistant Secretary for Science & Technology*

made it clear that they would like to have the U.S. participate.

The Department of Commerce has taken the lead in urging U.S. membership in the organization. Likewise, membership has been recommended by private organizations whose activities are related to or affected by IOLM recommendations.

However, Samuel De Palma, Assistant Secretary of State for International Organization Affairs, explained to the Senate Foreign Relations Committee in the hearing

on the IOLM convention last August that the Department of State had taken a conservative position on such proposals "out of a concern for the growing numbers of intergovernmental organizations and the growing cost of their operations.

"We are now satisfied," he added, "that is is in the interest of the U.S. to join this organization."

In testimony before the Senate Committee, Acting Assistant Secretary of Commerce Simpson pointed out that IOLM is the "legal" counterpart of the International Conference on Weights and Measures, in which the U.S. has been an active member since its inception in 1875. He recalled that legal questions were almost always on the agenda of the weights and measures conference, and that at one point consideration was given to setting up a "Consultative Committee of Practical Metrology."

### Legal aspects

If this had happened, he said, the U.S. would have participated consistently in decision-making on the legal aspects of metrology. But instead, a separate organization was set up in which this country has had virtually no influence.

Organizationally, the IOLM is divided into three parts, as follows: the International Conference on Legal Metrology, which is meeting in London later this month; the International Committee of Legal Metrology, within whose framework the technical work of the organization is conducted by the working groups; and the International Bureau of Legal Metrology, which constitutes the Secretariat of the organization.

The Secretariat has headquarters in Paris, and a staff of seven persons. Its budget for 1972 is estimated at $109,000. The initial dues of the U.S. will amount to about $15,000 a year, plus an entry fee of about $15,000.

—*Office of the Assistant Secretary, Science & Technology*

# Experimental Data Buoys In Arctic Ice May Benefit Future Forecasting

Four satellite-communicating, data-reporting buoys are adrift in the Arctic ice in an experiment which could play a major role in future weather forecasting.

Much of the world's weather develops around the polar regions, and a system of buoys regularly reporting meteorological data would provide an important assist to the nation's forecasters.

The unmanned 350-pound buoys are being tested in the ice pack north of Barrow, Alaska. They are designed to operate for a year. If successful they could conceivably pave the way in the future for the stationing of a large array of environmental buoys in the polar regions. Such an array of Arctic buoys would complement those being tested now by Commerce's National Oceanic and Atmospheric Administration in the North Atlantic, Gulf of Mexico, and Gulf of Alaska.

The Arctic buoys are funded by NOAA's National Data Buoy Center, which is responsible for the development of deep ocean environmental buoys. Six were installed last April. Four are still operational, relaying environmental data on air pressure, temperature, and ice movement to Fairbanks, Alaska, via the National Aeronautics and Space Administration's polar-orbiting Nimbus-4 satellite.

### Buoy design

The buoys were installed in nine-inch-diameter holes cut in sea ice from 9 to 12 feet thick. The work, including buoy design and development, was performed for the National Data Buoy Center by the University of Washington's Applied Physics Laboratory in Seattle. Logistics and field support for deployment of the buoy array was provided by the Arctic Ice Dynamics Joint Experiment Program in conjunction with the National Science Foundation. This is an international, multi-agency affiliation of scientists studying the interactions between the ice cap, the Arctic Ocean, and the atmosphere. The planning and coordinating office is located at the University of Washington.

Decision to station the six buoys in the ice was reached after an experimental buoy developed for NOAA by the Applied Physics Laboratory operated successfully from an ice island for five months, from the fall of 1971 to the following spring. One of the six buoys was placed in the ice at the main

**ARCTIC TRANSMITTER**—*Although it looks like an instrument left behind on the moon by astronauts, it is actually an unmanned 340-pound buoy embedded in the Arctic ice north of Barrow, Alaska, where scientists are gathering environmental data on the polar cap. Its antenna, which enables it to transmit data to a Nimbus satellite passing overhead, is at the top of the 10-foot mast. Electronics, battery, and pressure sensors are contained in the bottom of the 20-foot buoy body to take advantage of the warmth provided by the sea water in an area where the temperature can fall to 60 degrees below zero.*

ice-camp about 250 miles north of Barrow, and the remaining five were located in an array around the central buoy, at distances of 200 to 300 miles. The farthest north was approximately 450 miles from Barrow; the southernmost buoy about 60 miles away. They were deployed by small aircraft flying out of the main camp.

### Clockwise drift

Since then, the buoys have drifted generally clockwise around the central buoy, but not at the same speed or distance. Dean Haugen, Project Leader for the Data Buoy Program at the Applied Physics Laboratory, said the largest movement so far is in excess of 450 miles from the point of installation. Haugen said the critical period for the buoys is during the summer, when the buoys may become free-floating and more susceptible to damage from collision or crushing by ice movement.

"The results so far have been very encouraging," said Haugen, "including the fact that four of the six buoys are still operating." Haugen said the cause of the two failures is unknown, but many possibilities exist including damage from ice movement or breakup, heavy icing, strong winds, and even inquisitive polar bears.

### Buoy inspection

This month an expedition will be dispatched to inspect the buoy left at the site of the main ice-camp last spring. If it is still performing satisfactorily, it will be left in the ice to determine whether it can survive until next spring when the party will again return. No effort will be made to inspect the buoys on the ice pack, at least until spring. Two additional buoys will also be installed during the expedition this fall. Arctic conditions permit only two trips a year.

When the project reaches its peak in 1975, it is hoped to have an array of 30 buoys operating in the Arctic. —*NOAA*

# Seas Advisory Group Finds Problems Needing Action

A common pattern of problems arising "from the behavior of a system that takes action only in a crisis" are spelled out in the first annual report of the National Advisory Committee on Oceans and Atmosphere.

The 25-member Advisory Committee, created by Congress last year, has sent its first report to the President and the Congress accompanied by a report of Secretary of Commerce Peter G. Peterson.

The report focuses on four major topics—law of the sea, fisheries, weather modification, and coastal zone management.

"Man's increased power to exploit the environment, and to destroy it, has brought an end to the era in which societal decisions could be based on the frontier philosophy," says the report. "We no longer deal with unlimited resources of energy and materials. The shoreline is not unlimited. Species can be made extinct by over-zealous exploitation. Once we could fire a pistol that sent the settlers rushing to fill the vacant lands. Today, the ocean frontage is overcrowded, the pioneers have no new land to conquer, but we still make decisions as though they did."

The committee recommends that:

- The U.S. should not modify its policy of free passage outside the 12-mile territorial limit and in classical straits;
- Management of ocean fisheries as a resource should be separated from territorial concepts and managed by the adjacent coastal nation with priority given to conservation of the resources; and
- Freedom of research on the open sea should remain firm U.S. policy.

To increase international understanding of the problems and techniques of ocean research, the Advisory Committee recommends that other countries, particularly developing nations, be encouraged to participate in as many joint and varied projects with the U.S. as possible. Toward this end, it suggests that: the State Department's Office of the Coordinator of Ocean Affairs and Special Assistant for Fisheries and Wildlife be strengthened; other government agencies be used more effectively in international ocean programs; the role of the Intergovernmental Oceanographic Commission be reexamined; international participation, at high levels, in the International Decade for Ocean Exploration be increased; the National Marine Fisheries Service's role in exchanges with foreign governments be enhanced and strengthened; the U.S. Navy extend its relationships with foreign navies in the exchange of research programs and techniques; and international cooperation in Commerce's National Oceanic and Atmospheric Administration's buoy development program and air-sea interaction experiments be increased.

### Rehabilitating fisheries

As to the problems of rehabilitating U.S. fisheries, the report notes that, on the average, 55 to 60 percent of the fish products consumed in the U.S. is imported. The Committee proposes that the U.S. establish a target of increasing domestic production sufficiently to reduce dependence on imports.

Concerning weather modification, the Committee concludes that "the potential benefits from weather control and conscious climate modification are very large. So are the potential risks—particularly from inadvertent modification. Furthermore, any technique enabling man to control large-

scale phenomena necessarily raises grave social, legal, and economic issues where effects extend across state and national boundaries. There is still time to address these issues rationally before operational weather modification grows at a pace which forces hasty moves." The committee believes the time has come to take action along several broad fronts including legislation and regulation, research, and international agreement.

Considering the coastal zone, where increasing population and economic activities in a limited area are creating mounting pressures, the report recommends prompt enactment of coastal zone legislation, "devoted exclusively to the management of the coastal zone unencumbered by the larger issue involved in land-use legislation applicable to the entire nation.

The committee also recommends that the Secretary of Commerce be asked to undertake a study of the nation's marine transportation system as it relates to economic growth, social costs and benefits, and environmental goals.

In his accompanying report to the President and Congress, Secretary Peterson points out that the report's attention to the need for effective mechanisms for coordination between the activities of the many federal agencies to insure a coherent national program in both oceanic and atmospheric affairs conveys the impression that no mechanisms exist. The Secretary says many mechanisms do exist for the coordination of scientific and technological matters.

He points also to the President's concern in this matter by his establishment of the Council on Environmental Quality, the Environmental Protection Agency, and the National Oceanic and Atmospheric Administration.

Copies of the report may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, at 40 cents each.

# National Energy Research Commitment Seen Needed

The present national debate on environmental policies has produced an "unfortunate polarization" between environmental and economic concerns that is hampering the search for "achievable and reasonable solutions," Commerce Secretary Peter G. Peterson told the recent National Environmental Information Symposium in Cincinnati. The symposium was sponsored by the Environmental Protection Agency.

He called for a national commitment of men and resources to energy research that will produce solutions that balance the needs of the economy with the requirements of ecology, suggesting that a commitment may be required similar to the Apollo moon program or the Manhattan Project of World War II.

"Almost no one sees the energy problem in all its complexity, in terms of trade-offs in an interrelated system which if pushed from one side produces a bulge on the other," said the Secretary. "Most look at it in terms of their particular, parochial interests. And that kind of thinking can only buy an iatrogenic: that is, a cure which breeds problems worse than those it was intended to correct.

## Severe energy problem

"This country faces a severe energy problem over the next 20 years," he added. "The projected annual deficit by 1985 on the energy account—asuming we import fuels at the level projected by some —is $25 billion. Given our already serious balance of payments deficit, and the existing monetary turmoil, this by itself should be no insignificant deterrent. Beyond this the national security implications of permanent and substantial reliance on fuel imports would be equally unpalatable.

"The largest clean fuel reserves are located in areas of low political stability or areas where political interests have traditionally been at odds with our own," Secretary Peterson said. "The danger of supply interruption at the source and risk of adverse price manipulation are simply too great under these circumstances to warrant wholesale dependence on foreign energy sources."

There are those, on the other hand, who suggest encouraging greater domestic production through new tax incentives as the answer, said the Secretary, but here there would be an outcry if subsidies for increased production added to taxes.

"There are those who propose that we solve our energy problem by reducing consumption," said the Secretary. "While in the environmentalist's construct this may represent an ideal solution, the pains of unemployment and the loss of creature comforts it would carry in its wake, could produce a backlash that could well sweep away all the gains we have made thus far in the battle to protect the environment.

"We are, it seems, a nation of Dr. No's who know for certain what we cannot do, who are transformed into Dr. 'I don't Know's' when asked to supply clues as to what we *can* do," he said.

Secretary Peterson predicted that the nation is headed for what he called a "long cold winter" if there is no resolution of the polarization between those who narrowly push for energy growth and those concerned about the environment. An energy crisis, because of the backlash against the environmentalists it might produce, might lead to a lot of cold and dirty winters, he said.

Urging a systems analysis ap-

**ON-LINE CHECKOUT**—*Commerce Secretary Peterson is briefed by William T. Knox (left), Director of Commerce's National Technical Information Service, on the new on-line interactive information retrieval system displayed by NTIS at the recent National Environmental Information Symposium at Cincinnati. The new system takes questions immediately via a video keyboard display terminal coupled to a computer containing data on the wide ranging NTIS collection of more than 300,000 titles collected since 1964 as well as 60,000 new reports added annually. Ted Ryerson, NTIS technical information specialist, is at right.*

proach to environmental policy, he pointed out that "by its very nature, a systems approach would crank the costs of reduced national productivity into the calculations that produce a national environmental program, much in the way an aeronautical engineer cranks in estimates of wind friction in shaping the wings and the fuselage of an airplane."

President Nixon's plans to redesign the Federal Government will emphasize the systems approach, he told the symposium, referring to the proposed Department of Natural Resources to coordinate resource development.

"Right now, the President's domestic council has undertaken a comprehensive study of the energy problem that is aimed at a coherent energy policy that considers together the economic, environmental, technological balance of payments, and national security factors," he said.

"I am not yet prepared to give up hope that science and technology—under the proper harness—will not lead us to safe ground," the Secretary added. "There are glittering technological possibilities for clean energy development, for example. Our current energy research activities are inadequate to the challenge we face. The theoretical opportunities for breakthrough are endless. Clean energy resources may be found in coal gasification. The nuclear breeder reactor offers great promise. Fuel cell research represents another potential source: magneto hydrodynamics and geothermal and solar energy are still other potential sources with promise. Now we must bend our efforts to unlock that promise."

*—Office of the Secretary*

## California Inventors Council Plans Seminar

A one-day seminar on "How to Cash In On Inventions and New Products" is scheduled Nov. 15 by the California Inventors Council of San Francisco. The seminar is being held at the Royal Coach Motor Hotel in San Mateo.

Among the sponsors beside the Department of Commerce are the California Department of Commerce, California Chamber of Commerce, Small Business Administration, Semiconductor Equipment and Materials Institute, and Peninsula Manufacturers Association.

Joseph C. Olsen, President of Olsen & Company, Inc., of San Jose, is chairman of the Inventors Council. This non-profit group, formed four years ago in Oakland, helps individuals and company inventors through regularly staged seminars and patent exchanges. Honorary chairman of the group is Edward Reinecke, California's Lieutenant Governor.

For the eighth consecutive year in 1971, California led the nation in the number of patents granted its inventors, according to the Patent Office. Of the 81,543 patents issued last year, Californians received 7,750.

Further information concerning the inventors seminar may be obtained from Commerce's San Francisco Field Office, Federal Building, Box 36013, 450 Golden Gate Ave., San Francisco, Calif., 94102.

## *Pollution Engineering Congress Set Dec. 4*

"Industry's Response to Environmental Problems" is the theme of the first International Pollution Engineering Congress scheduled for Dec. 4 at the Cleveland Convention Center. Approximately 15,000 visitors are expected from 30 countries.

Information may be obtained by writing Clapp & Poliak, Inc., 245 Park Ave., New York, N.Y. 10017.

## Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

**Apparatus for surf generation.** A tapered enclosure for a body of water which has a wave generator positioned in a relatively narrow and deeper end. In one form, the wave generator is a buoyant plunger mounted for vertical reciprocation within a chamber having a shorewardly facing opening. Through a cyclic control system, the plunger is driven in phase with the forces of gravity and buoyancy action, starting from a rest position through strokes of increasing amplitude until a desired steady state is attained to sequentially produce waves of a desired energy. Provision is made for varying the mass of the plunger and the input from a prime mover as a means of adjusting wave energy and frequency. Patent No. 3,693,195 issued to George E. Richard, 6507 Seaside Walk, Long Beach, Calif. and Eugene D. Richard, 11570 Victory Blvd., Hollywood, Calif.

**Car washing device.** A car washing device comprising a number of soft and small diameter rotary brushes which are secured to resilient flexible shafts, with two or more sets of brushes in pairs, and with two brushes in a pair being spaced adequately and rotated at low speeds. The brushes are soft enough to be compressed to every curved surface of an automobile. The latter brush assembly forms part of an entire car washing installation through which automobiles are automatically drawn while suitable devices are arranged along the installation for washing, polishing and drying each automobile as it passes through the installation. Patent No. 3,693,206 issued to Seizo Tatara, 18, Takidai-cho, Chibapken, Funabashi-shi, and Yoshio Ohdachi, 1477, Higashiteraocho, Tsurumi-ku, Kanagawa-ken, Yokohama-she, Japan.

**Self-propelled farm machines.** A self-propelled composite machine for harvesting cereals, resulting from the incorporation of a harvesting and threshing implement to a self-propelled vehicle having a straddle-type frame and including various harvesting implements of the type of the composite self-propelled machine. Patent No. 3,693,332 issued to Emile Bobard, rue de Reon, Beaune, Cote D'Or, France.

***Patent numbers 2,719,294 to 2,721,998 will expire during October 1972. Upon the expiration of the 17-year period covered by a patent, the invention passes into the public domain and may be made, used or sold by the public without payment of any royalty, or infringement of the inventors exclusive patent rights.***

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402. A microfilm Patent Subscription Service is available from the National Technical Information Service, Springfield, Va., 22151.

## Science Calendar

**Oct. 17-18—Gaithersburg, Md.**—National Bureau of Standards. Association for Computing Machinery, Special Interest Group on Computer Systems Installation Management.

**Oct. 27-29—Milwaukee, Wis.**—Wisconsin Invention Exposition. Information: Division of Economic Development, State of Wisconsin, 123 W. Washington Ave., Madison, Wis., 53702.

**Oct. 30-Nov. 1—Gaithersburg, Md.**—National Bureau of Standards. "Dimensional Accuracy in Mfg."

**Nov. 9-11—Sioux Falls, S.D.**—South Dakota Inventors Congress. Information: South Dakota Inventors Congress, State Office Bldg., Pierre, S.D., 57501.

**Nov. 15—San Mateo, Calif.**—Royal Coach Motor Hotel, 1770 S. Bayshore Blvd. Seminar on "How To Cash In On Inventions and New Products." Sponsored by Commerce Department, California Chamber of Commerce, Small Business Administration and California Dept. of Commerce.

**March 14-16, 1973—Chicago, Ill.**—Conrad Hilton Hotel. Industrial Water & Pollution Conference and Exposition. Sponsored by Water and Wastewater Equipment Manufacturers Assn.

**March 19-21, 1973—Gaithersburg, Md.**—National Bureau of Standards. National Roofing Technology Conference.

**April 9-10, 1973 — Gaithersburg, Md.**—National Bureau of Standards. Federal Information Resources Conference.

**March 23-25, 1973—Hill City, Kan.**—Mid-America New Ideas Fair, Graham County Fair Grounds. Information: Hill City Chamber of Commerce, Hill City, Kan., 67642.

**April 4-7, 1973—San Mateo, Calif.**—Northern California Industrial Exposition, Hall of Inventions. Information: Northern California Industrial Exposition, Freeman and Associates, 77 Jack London Square, Oakland, Calif.

# INTERNATIONAL COMMERCE REPORT

- **Mission probes Latin medical markets**
- **Machinery tops Australian trade picture**
- **Indonesia is fast-growing market**
- **Iran sustains strong economic growth**
- **Japan takes steps to aid U.S. trade**
- **Investment, direct sales openings listed**

## *U.S.-Africa Business Gets Tripartite Push*

The notion that U.S. business cannot compete effectively in the developing countries of Africa is "nonsense," said Earl G. Peacock, Kaiser Engineers' top executive for that part of the world. "Africa's development needs mesh very closely with the needs of American business," noted Under Secretary of Commerce James T. Lynn. Ambassador Leonard Oliver Kibinge of Kenya invited U.S. investors to "join the winning team: the 41 independent nations of Africa."

These and other participants of a joint State-Commerce conference at the State Department in Washington Oct. 3-4 agreed that doing business with developing Africa isn't as difficult and risky as many Americans think. There are problems but they are not insurmountable, and they are often more than offset by potential profits.

The conference, *Opportunities for Trade and Investment in the Developing Countries of Africa,* brought together some 165 senior executives of U.S. agribusiness, manufacturing, banking and commercial enterprises, and top-ranking representatives of the U.S. Government and developing African countries.

### Potential and problems

David D. Newsom, Assistant Secretary of State for African Affairs, opened the conference by noting that developing Africa is an area with great potential, but also major problems, such as the lack of skilled manpower and investment capital, and narrow export bases. Newsom suggested that participants of the conference address themselves to ways of helping the countries of developing Africa attract capital, diversify trade, and develop a strong base of trained manpower.

The primary objective of the conference, said Commerce's Lynn, is to further U.S.-African trade and investment through identifying and developing sound business opportunities that will make good sense and fulfill the aspirations of the African people. Lynn, whose keynote speech set the tone of the conference, observed that African countries have devoted considerable time and effort to development planning, and that diversification of trade relationships ranks high in their priorities. The United States has a great deal to offer the Africans, he said, and can help them meet their most urgent needs; the conference should help U.S. businessmen learn more about those needs.

Lynn, in urging even closer business relationships between the United States and developing Africa in the future, noted that the 8,000 African students studying in the United States could provide a

WORKING SESSION—*Panelists at this meeting, on opportunities in Africa for U.S. engineering and construction firms, agreed on the need for flexibility. Concurrent sessions discussed the extractive sector, and manufacturing and agribusiness.*

basis for closer contacts. With equitable treatment for both sides, a greater number of practical, economically sound business opportunities can be evolved, he declared.

This conference is a beginning, said Secretary of State William P. Rogers, and the U.S. Government hopes for more such sessions in the years ahead.

Secretary Rogers noted his own personal interest in the developing African nations, recalling that he was the first Secretary of State officially to visit the continent. He observed that the United States is the "second largest black country in the world" and consequently has strong natural ties with the African countries.

TALKING BUSINESS — *Philip Jones (left), Export-Import Bank; Donald Wolff, Economic Officer at the U.S. Embassy in Kinshasa; and Baruti Wa Ndwale, Zairian Minister of Finance, take advantage of a break in the conference to discuss an Eximbank project.*

The Secretary called for African governments to establish and adhere to explicit investment rules, noting that U.S. businessmen interested in investing in Africa want to know what is expected of them by the host governments.

Secretary Rogers voiced hope that the conference would stimulate new U.S. business interest in the developing African countries.

Robert K. A. Gardiner, executive secretary of the United Nations Economic Commission for Africa, posed the question, "What are Africans seeking from foreign investors? They are seeking," he went on, "developmental assistance on terms that are equitable." The potential of the African market is as rich and challenging as any to be found in the world, he added, and careful appraisal of opportunities and honest agreement on the basis for cooperation would show that there is much in the development of Africa for both the private foreign investor and for the African peoples.

The problems of developing markets in African countries are different from and more challenging than those in already developed market economies. Sometimes, Gardiner added, private investors may not be sufficiently aware of these differences. Often, fresh approaches would be more effective.

"Academics and practitioners, Governments and private entrepreneurs, developed and developing country personnel have much to learn from each other if only they make sufficient attempts to find common ground for discussion," concluded Gardiner. "I can think of no more appropriate starting point than private direct foreign investment."

Kenya's Ambassador Kibinge emphasized that U.S. firms should do business directly with Africa rather than through intermediaries. He urged that a long-term view of investment be taken, instead of thinking in terms of a "quick-kill," and suggested that firms take into consideration the mutual benefit of their companies and African countries when exploring business opportunities. Firms shouldn't necessarily be discouraged by small markets, he said, as the whole is sometimes greater than the component parts. He advised U.S. firms to get started by appointing indigenous field representatives, then to begin negotiations.

## This is the challenge

Ambassador Kibinge concluded with a quote from his country's President, Jomo Kenyatta: "My Government has made it clear that we welcome foreign investors. This we do, because we expect them to make a positive contribution to the general economic well-being of this country. We also expect them to employ our people and train them to acquire new skills." Added Kibinge, "This is our policy, and our hope. This is the challenge to U.S. businessmen today."

Ambassador Francois-Xavier Tchoungui of Cameroon, noting the ever increasing gap between rich and poor nations, said that developing countries want to participate more fully in the world economy. He urged greater effort toward that objective, observing that it would have economic benefit for both the developed and developing countries.

Mohammad Diawara, Minister of Plan for the Ivory Coast, chided U.S. firms for being too cautious when considering investments in Africa. "Come to Africa, take risks, and live up to your reputation," he said "instead of worrying about how many guarantees you can get to protect your investment." He added that Africans want American representatives of American companies, complaining that many U.S. firms appoint French or Germans to head their branches in his country.

Peacock, vice president for Africa at Kaiser Engineers, was moderator of a panel session on *Opportunities for American Firms in the African Engineering and Construction Sectors*. He asserted that the key to success in developing African countries is flexibility.

During a panel discussion on *Some Problems Likely to be Faced by American Firms in Africa*, Robert S. Smith, Deputy Assistant Secretary of State for African Affairs, grouped possible obstacles into three categories; marketing, relations with African governments, and shortcomings of U.S. firms. Panel members agreed that these problems are not as imposing as many businessmen think.

## Foreign Service role

"Get acquainted with U.S. Foreign Service Officers," U.S. businessmen were urged by Willis C. Armstrong, Assistant Secretary of State for Economic and Business Affairs, "and let the State Department know of any way you think they can be improved." State is encouraging U.S. Ambassadors and other Foreign Service personnel to take a greater interest in commercial affairs, he added.

Stephen M. Conger, Director of Commerce's Africa Division, posed some questions for the participants to consider. For U.S. firms: What kind of a job is your distributor doing in Africa? How effectively have you divided your market territory? Is there a greater role for Africans now studying at U.S. universities in expanding your distribution network in Africa? For African Government officials: Are African Governments doing all they can to help develop local distributorships? What can be done to help small African distributorships compete with big European firms? Conger urged that these questions be considered as a follow-up to the conference.

**OPPORTUNITIES IN THE EXTRACTIVE SECTOR**—*One of the panelists at this working session was Quett K. J. Masire, vice president and Minister of Finance and Development Planning for Botswana (left). To his left are R. C. Roberts, president, Reynolds Mining Co., who acted as moderator of the session, and other panelists.*

Marinus van Gessel, Acting Deputy Assistant Secretary of Commerce and Director of the Bureau of International Commerce, as moderator of a panel discussion on U.S. Government and business cooperation, discussed some of the ways in which the Commerce Department is working with U.S. business to expand trade and investment with Africa. Other panelists representing the Agency for International Development, Export-Import Bank, FMC Corp., U.S. Chamber of Commerce, and Overseas Private Investment Corporation also pointed out some of the things their organizations are doing to further U.S.-African business.

The conference concluded with some comments from Commerce's Fox regarding steps that should be taken in following up the progress made during the conference. He said the U.S. Government feels an obligation to act on the insights gained, by developing new programs and improving existing ones, and by directing attention to further opening channels of trade throughout the world. "The challenge now for all participants," said Fox, "is to act on the words exchanged."

**ON DISTRIBUTION**—*Stephen A. Tolbert, Liberia's Minister of Finance, speaks at a panel discussion on building more effective distribution channels.*

DOWN IN RIO—*Arriving from Caracas, members of the U.S. hospital and medical equipment trade mission pause for picture before facing heavy schedule of individual and group appointments in Brazil's second largest city.*

# Medical Equipment Mission Sees More Exports To Latins

Sales of U.S. medical and hospital equipment to Brazil and Venezuela can be increased, even though at the present time the market is dominated by foreign competition.

The primary factor limiting future sales is the problem of maintenance; a close second is financing.

These are opinions of a medical and hospital equipment trade mission organized by the U.S. Department of Commerce to stimulate exports to these Latin American markets.

The mission, comprised of representatives of 12 U.S. firms that visited the area last month, attracted the interest of Brazilian and Venezuelan Federal, State, and local officials, hospital administrators, graduate students, and representatives of firms supplying hospital and medical equipment. The U.S. businessmen manufacture such items as diagnostic and monitoring equipment, service supplies, and portable hospitals.

Through seminars, technical sessions, and individual appointments in Caracas, Rio de Janeiro, and Sao Paulo the mission members sparked enough interest in their products to get $542,000 worth of orders.

Sheldon A. Miller, hospital consultant to the Health Care Facilities Service, U.S. Public Health Service, headed the mission. Miller reported sizable audiences at all three seminars—110 in attendance in Caracas, 45 in Rio, 178 in Sao Paulo. Speakers included Dr. Henry N. Wagner, Jr., acting chairman of the Department of Radiological Science, Johns Hopkins medical institutions, Baltimore; Dr. Jose Gonzales, director of the international program of the American Hospital Association, Washington, D.C.; and mission members Graham J. Leech, Kent Cambridge Instrument Co., Ossining, N.Y., and Forest L. Neal, Garrett Corp., Los Angeles.

Dr. Gonzales labeled the seminar "an indispensable feature of the mission," attracting "appropriate members of the medical and health care community."

Mission Director Miller reports that many of the medical authorities he met during the group's visit mentioned "long-standing inadequacies" of U.S. firms in installing their equipment properly, in providing instructions to local personnel on both use and maintenance, and in supplying repair and replacement parts.

Miller also learned of instances in which U.S. firms' proposals had not even been considered in bidding procedures, because of the more favorable financing and servicing extended by other foreign

***The Commerce Department is planning two additional trade missions specializing in medical-related goods: A medical and surgical equipment mission to Spain and Portugal next February, and a hospital and medical equipment mission to Saudi Arabia and Kuwait in April.***

***For additional information on either mission, write: E. Lee Carteron, BIC-940, U.S. Department of Commerce, Washington, D.C. 20230; phone, 202-967-2051.***

manufacturers, banks, and government financing agencies.

Dr. Wagner, in his report to the mission director, rated financing an even more important factor than maintenance: The greatest need, he said, "is in getting adequate financing. Low-interest loans would be accepted by the physicians with whom I visited."

In Caracas, after only the first-day contacts, many of the firms commented affirmatively about prospects; for example:

Sherwood Medical Industries, Inc., St. Louis: "Market excellent —largest in South America."

General Electric Co., Milwaukee: "Dramatic efforts could result in several million dollars in new business."

Fisher Scientific Co., Springfield, N.J.: "This is a prime immediate market."

Pellerin-Milnor Corp., Kenner, La.: "We see the possibility of a $100,000 market for our products."

Also in Caracas, a round table discussion was held with 32 medical hospital engineers representing government maintenance officers from 12 Latin American countries. The engineers were participating in a joint World Health Organization and Pan American Health Organization training program. Mission Director Miller believes that the meeting contacts will help spawn additional trade missions to Latin America.

In Rio, a visit to a large hospital under construction laid the groundwork for possible utilization of U.S. products in equipping the unfinished half; European equipment has already been purchased and is being installed in the completed sections.

From Sao Paulo, Miller and Dr. Gonzales motored to Santos to attend the State Hospital Association of Sao Paulo Convention, where two papers were presented to an audience of 360. Some 100 post-graduate students in hospital administration from the University of Sao Paulo attended another special presentation.

Additional firms participating on the mission were: American Hospital Supply Corp., Evanston; American Standard, New Brunswick, N.J.; Bourns, Inc., Riverside, Calif.; Hewlett Packard Co., Palo Alto, Calif.; Hycel, Inc., Houston, Tex.; and Picker International Corp., Kenner, La. The Commerce Department's E. Lee Carteron was deputy director.

**DOCTORS ARRIVE**—*In Sao Paulo, Mission Director Sheldon Miller (left) welcomes Dr. Vinicio Carlos Ross and Dr. Candido da Silia Lopes of the Childrens' Hospital to the group's seminar, attended by medical industry leaders.*

# Texas Group Cites Sales In Brazil

Seven Texas industrialists returning from a two-week trade mission to Brazil expect to realize substantial sales during the coming year plus additional long-term business as a result of their trip.

James Havey, director of the Texas Industrial Commission's International Trade Division, made the prediction following the State's second venture into the field of foreign trade this year. "It is difficult to place an exact dollar amount on the business we generated since several of the firms were interested in joint ventures and licensing agreements, but obviously the market will expand," Havey said.

## Tour extended

The mission, sponsored by the Commission in conjunction with the U.S. Department of Commerce, made stops in three of the South American country's largest cities—Sao Paulo, Rio de Janeiro, and Belo Horizonte. Mission leader James Harris, assistant director of the Commission's International Trade Division, cited Brazilian industrialists' eagerness to deal with Texas manufacturers. "We had originally scheduled 150 appointments in Sao Paulo and Rio," he said. "Before the tour was over, we had had more than 200 in addition to extending the tour an extra day to visit with manufacturers in Belo Horizonte at their request."

Mission members included G. M. Smith of General Computer Systems, Inc., Rudolph Benavides of Servis Equipment Co., Gaylord T. Willett of Universal Pool Products, Inc., Allan D. Nanney of Frigiking Division, Cummins Engine Co., all from Dallas; John A. Andrews of Andrews Tower Co., Fort Worth; and Bill White Jr. of Hydro-Tech Services, Inc. and Woodrow W. Hering of Anderson Greenwood & Co., Houston.

# Tool Builders Sell In Latin America

The machine tool builders have been traveling abroad again selling their equipment—this time in Brazil and Venezuela.

The industry's fifth Government-approved trade mission visited Rio de Janeiro and Sao Paulo; one member also went to Belo Horizonte; and several, to Caracas, Cagua, and La Victoria in Venezuela.

Seeking exposure to new business prospects, license or joint venture partners, marketing information, and immediate sales, the tool builders wrote more than $160,000 worth of orders and expect to conclude sizable additional sales in the next year.

### Market appraised

The consensus of the participants, according to James A. Gray of the National Machine Tool Builders Association which organized the mission, was that at present the Sao Paulo area represents their best prospect; Rio offers a somewhat lesser opportunity, and Belo Horizonte may become of more interest in the near future.

Further development will be required before Venezuela becomes substantially interesting to machine tool builders, says Gray—who headed the mission. "Few high production machines are of use now in Venezuela, but there is a limited market for presses, press brakes, shears, forging machines and machines for maintenance purposes."

A variety of metalworking plants were visited—from small to large, from jobbing shops to automotive plants and from relatively outdated to newly equipped plants. "Almost all of the factories had plans for expansion in the near future, or were already in the construction stage of their expansion," Gray reported.

EXCHANGING VIEWS IN BOGOTA—*Louisiana sugar cane machinery trade mission discussed Colombian market with Government officials. Left to right, clockwise around table: W. Garth Thorburn, Agricultural Attache, U.S. Embassy; mission members deLesseps S. Morrison, Jr., John E. McKinley III, Eugene Falgout, Ray Waguespack, Edgardo R. Diaz, Richard G. Arellano; Hernan Vallejo Mejia, Vice Minister of Agriculture. Not present: Jerry ten Brink, John F. Smithies.*

# Louisianans Report Good Prospects For Selling Sugar Cane Machinery To Colombia, Venezuela

Members of an industry-organized Louisiana trade mission are busy following through on contacts made earlier this year during a business trip in Latin America.

The mission, seeking markets for sugar cane equipment, visited Colombia and Venezuela and found good prospects in both countries.

The sugar outlook in Colombia is for substantially increased production in 1972-73, and probably in the next 5 to 10 years. A newly installed mill is expected to begin operation in 1974, and another may be installed. "With new mills, year-long production, favorable world prices, and increasing consumption, imports of machinery for transport, cutting, harvesting, and general field operations should increase substantially," says Mission Director Richard G. Arellano of the International Marketing Institute at Louisiana State U., New Orleans.

The mission visited the largest sugar cane plantation and mill in the country, and some equipment sales were made. The group also talked with officials of the Agricultural Development Bank, and with the Vice Minister of Agriculture. According to Dr. Arellano, the Ministry official said that Colombia would "act generously" regarding importation of equipment necessary for beginning a gradual mechanization process.

Venezuela's sugar production and consumption are increasing annually. Growing and harvesting seasons are shorter than in Colombia's Cauca Valley, Dr. Arellano points out; in addition, Government policy on mechanization is more favorable. Expansion of Government-controlled mills, construction of five new mills and refining operations, and additional subsidies and investment in the sugar sector are being considered. Thus, "cautious optimism" describes the outlook for purchases of U.S. equipment.

The Government-approved mission was comprised of three U.S. businessmen, three bankers, and representatives of the International Trade Mart and the International Marketing Institute. The Louisiana-Mississippi Regional Export Expansion Council and the New Orleans Commerce Field Office cooperated in organizing the group.

# Trade Meeting To Focus On Need For Teamwork

Nearly 2,000 persons are expected to attend the Nov. 13-15 National Foreign Trade Convention in New York during which distinguished American business leaders will share the platform with labor leaders, Government officials and educators.

Fred J. Borch, board chairman of General Electric Co., will deliver the keynote address as convention chairman. Speaking for the U.S. Government at the opening session will be Secretary of Commerce Peter G. Peterson. Robert J. Dixson, chairman of the sponsoring National Foreign Trade Council, will preside.

J. K. Jamieson, board chairman, Standard Oil Co. of New Jersey, will address the convention's World Trade Dinner.

## Speakers from abroad

Foreign spokesmen will bring into focus the European, Latin American and Pacific-Asian points of view in major addresses by the Italian industrialist, Dr. Giovanni Agnelli of FIAT; Brazil's Minister of Finance, Antonio Delfim Netto, and the Japanese Ambassador to the United States, Nobuiko Ushiba. Each will address a luncheon.

"Solutions to the crucial issues and challenges which today face international business require effective coordination among the branches of our Government, business, labor and all segments of the economy in the formulation and carrying out of our foreign economic policies," Council president Robert M. Norris said in announcing convention plans.

Hoyt P. Steele, vice-president, General Electric Co., as chairman of the Convention Declaration Committee, will present the policy declaration for adoption.

An extended, five-hour International Trade and Investment Policy Forum will be held in two sessions. It will focus on the impact of foreign investment on exports, imports, jobs, balance of payments; restrictions on capital and technology transfers; import quota restrictions; U.S. taxation of foreign source income; domestic and foreign economic policy interrelationships; controlling inflationary pressures and increasing productivity; approaches to multilateral negotiations to reduce tariffs and nontariff barriers; essential safeguards for trade dislocations; adjustment assistance; and coordinated manpower policies.

Speakers will include John J. Powers, Jr., chairman of the board, Pfizer Inc.; Professor Dan Throop Smith of Stanford University; Leonard Woodcock, president, United Auto Workers; Professor Charles P. Kindleberger of Massachusetts Institute of Technology, and Andrew E. Gibson, Assistant Secretary of Commerce for Domestic and International Business.

Also Charles J. Pilliod, Jr., president, Goodyear Tire & Rubber Co.; Under Secretary of Labor Laurence H. Silberman; John M. Hennessy, Assistant Secretary of the Treasury for International Affairs; Lawrence A. Fox, Deputy Assistant Secretary of Commerce for International Economic Policy, and Theodore R. Gates, assistant special representative, Office of the Special Representative for Trade Negotiations.

## Monetary reform is topic

Paul A. Volcker, Under Secretary of the Treasury for Monetary Affairs, will address an international finance and monetary reform session. James R. Greene, senior vice president, Manufacturers Hanover Trust Co., and president, Bankers' Association for Foreign Trade, will lead a related discussion panel on monetary issues.

A Businessmen's Seminar on Basics of DISC (Domestic International Sales Corporation) will include Frederic W. Hickman, Assistant Secretary of the Treasury for Tax Policy.

## Balance of payments

A Businessman's Forum on Balance of Payments will be addressed by David T. Devlin, associate director, Bureau of Economic Analysis, U.S. Department of Commerce; Professor Peter B. Kenen of Princeton University; Lawrence A. Mayer, board of editors, *Fortune*; Robert P. Ulin, chief economist-finance, treasurer's department, Mobil Oil Corp., and Richard P. Urfer, senior vice president and director, Blyth Eastman Dillon & Co., Inc.

Speakers at the foreign private investment and economic development session will include Willis C. Armstrong, Assistant Secretary of State for Economic Affairs; and Bradford Mills, president, Overseas Private Investment Corporation (OPIC).

Commercial counselors of Eastern European embassies will join with American spokesmen as participants at the East-West trade forum. The speakers will include Michael W. Curran, vice president, international-Europe, the Chase Manhattan Bank N.A.; Napoleon Fodor, economic counselor, Romanian Embassy; Stanislaw Janiszewski, commercial counselor, Polish Embassy; Steven Lazarus, Deputy Assistant Secretary of Commerce, and Donald E. Stingel, executive vice president, Swindell-Dressler Co., Division of Pullman Inc.

The international environmental issues session will explore the implications for international business of pollution control standards as they relate to foreign trade and investment and will include a review of the results of the recent Stockholm Conference on world environmental problems.

## Trade Fairs, Centers

# U.S. Exhibitors Needed For Five Trade Shows

**Housing construction: Japan.** The March 5-10 Industrialized Building Exhibition at the U.S. Trade Center in Tokyo is designed to capitalize on the Japanese Construction Ministry's current Second Five Year Home Construction Plan, under which a total of 9.5 million housing units are scheduled to be built by March 31, 1976. Of this number, 3.8 million housing units will be built by the Japan Housing Corp. and other governmental organizations. The remaining 5.7 million units will be constructed by private industry. A more important headline-catching aspect of the second plan is that, of the 9.5 million housing units, a five year average of 20 percent prefabricated homes will be constructed. This ambitious goal will probably be met if the success of the first plan, which ended March 31, 1971 is any indication: 6.7 million units were constructed, thus meeting the plan's objectives.

U.S. manufacturers of industrialized building systems, automated fabricating equipment, general construction equipment, and building materials will find this exhibition an excellent opportunity for a timely introduction of their technology and equipment in Japan's rapidly growing construction industry.

For additional market information and show costs, please call Maurice A. Shea at 202-967-4511, or write him at BIC-950, U.S. Department of Commerce, Washington, D.C. 20230.

**Graphic arts: Japan.** The International Japan Graphic Arts and Printing Machinery Exhibition, March 16-19 at Harumi Pier, Tokyo, will be housed in two buildings, a large pavilion and a new spacious structure with two floors of display space.

Promotion for this exhibition in the Far East will be dual in character: The Japanese show sponsors who have the support of the Japanese Ministry of International Trade and Industry; and the U.S. Department of Commerce, which will undertake its own promotion to attract to the exhibition selected industrial and commercial printers and newspaper companies.

For additional market information and participation costs, please call Robert Levine at 292-967-4705, or write him at BIC-950, U.S. Department of Commerce, Washington, D.C. 20230.

**Hotel and Restaurant Equipment: France.** Approximately 35 U.S. firms will be able to display their latest lines of hotel and catering equipment at an April 9-13 exhibit at the U.S. Trade Center in Paris.

The market for this type of equipment in France is exceptionally strong. The French Government is actively promoting tourism, including incentives to build new hotels and catering establishments and to renovate old ones. As a result, sales of related equipment amounted to some $90 million last year, with imports accounting for about half of the total. Imports should continue to account for a substantial amount of total sales. Imports from the U.S. accounted for approximately $4 million, suggesting that American firms have barely scratched the surface of this potentially very lucrative market.

Recently completed market research indicates rapidly increasing public acceptance by consumers of uniform, quality food for convenience meals. The newer commercial cooking and refrigeration equipment especially necessary for convenience foods represents a fast-growing market in which the United States, with its excellent quality and advanced technology, possesses a definite advantage. This also applies to cleaning and maintenance equipment.

Market surveys further indicate that end-users of this type of equipment represent a fairly concentrated market eager to employ the latest labor- and time-saving equipment. They offer unusually good sales opportunities for U.S. manufacturers in the following product groups. convection/microwave/infrared ovens, pressure deep fryers, ice-makers/crushers, beverage dispensers, refrigerated mobile carts, high-speed dishwashers, and carpet conditioners/industrial sweepers.

For details call G. P. Gwaltney at 202-967-3848, or write him at BIC-946, U.S. Department of Commerce, Washington, D.C. 20230.

**Modern Merchandising Equipment: France.** France has developed one of the most advanced retailing systems in Europe, second only to Western Germany in the proliferation of large self-service stores. Given the continuing construction, development, and success of American-style supermarkets, shopping centers, and smaller stores, the outlook for U.S. manufacturers in the realm of modern merchandising equipment is most promising. To help them increase their share of this market, the U.S. Trade Center in Paris has scheduled a June 18-22 show of American merchandising equipment.

The show will concentrate primarily on the following product categories: data processing; business machines; display equipment and fixtures; refrigeration and air conditioning; material handling; warehousing and inventory control equipment; packaging/food handling and service equipment; secur-

ity, safety, and communications devices; and maintenance and repair equipment.

Advanced American technology in these areas, coupled with a rapidly expanding French market, promises an enthusiastic audience at this forthcoming Trade Center Show. For further information contact: Samuel S. Spaulding at 202-967-3968, or write him at BIC-944, U.S. Department of Commerce, Washington, D.C. 20230.

**Paper, Pulp and Conversion Machinery and Equipment: Mexico.** This first U.S. exhibition of its kind in Mexico will take place May 21-25 at the U.S. Trade Center in Mexico City. Aimed at the rapidly growing Mexican pulp and paper industries, the show is scheduled to coincide with the annual meeting of the Mexican Association of Technicians in the Pulp and Paper Industries (ATCP), thus assuring top-level attendance at the exhibit.

An annual average growth rate of 9-10 percent, coupled with an even faster growing rate of domestic consumption should prove attractive to American exporters of pulp and paper machinery and conversion equipment. Market research reveals that Mexican paper producers are already favorably disposed to American quality and service. The Trade Center show will capitalize on this competitive edge at an opportune moment, as a rapid expansion of production facilities is forecast.

For information, call Jim Blow at 202-967-4311, or write him at BIC-952, U.S. Department of Commerce, Washington, D.C. 20230.

## Security Show Rescheduled

The industrial and commercial security equipment show at the U.S. Trade Center in London, originally scheduled for March 5-9, has been rescheduled for June 4-8.

For further information, call William S. Gaines at 202-967-4073, or write him at BIC-938, U.S. Department of Commerce, Washington, D.C. 20230.

# Commerce Opens Regional Trade Office In Beirut

The Department of Commerce is opening a Regional Trade Development Office in Beirut, Lebanon, designed to promote U.S. trade with countries of the Middle East, the Gulf States and North Africa.

The office is opening October 16 with an exhibition of U.S.-manufactured business machines and office equipment. It is located at Corniche and Rue Aiv Mreisseh (Tel. 240-800).

This is the third regional trade development facility to be opened by the United States. Others are located in Bangkok and Buenos Aires. U.S. regional trade development facilities are intended to meet the special needs of emerging areas. Each covers several countries and works to help them develop their own markets as well as to promote sales of U.S. goods.

The area to be served by the Office offers the U.S. businessman a market of more than 830 million people which imported more than $13.8 billion worth of goods in 1970. The U.S. share of this market was $2.68 billion, or 19 percent.

The area depends heavily on imports for both industrial and consumer requirements and the outlook for growth is excellent.

## Varied activities

The Beirut office will be used to promote a wide variety of U.S.-manufactured products through exhibitions, single company displays, technical seminars and symposiums, catalog shows, businessmen's workshops and U.S. Trade Missions. The office also will conduct exhibits at off-site locations.

James H. LeFeaver, formerly of the Commerce Department's Office of International Trade Promotion, has been named office director.

**IN MOSCOW**—*U.S. Ambassador to the USSR Jacob D. Beam, second from left, checks one of the U.S. pavilions at Moscow's Selkhoztekhnika-'72 agricultural implement exhibit with the help of Intertex International, Inc. representatives. Equipment from 23 countries was displayed at the September exhibit.*

READY FOR ANOTHER—*Charles A. Rossiter, international sales director for Orion Research, shown at center explaining his firm's digital pH meter to a Czechoslovak visitor, was impressed by the results of the first U.S. commercial exhibit at Brno. "Our participation in next year's exhibit is a must," said he.*

# First U.S. Commercial Exhibition Held In Czechoslovakia Hits Mark

USATECH 72, the first U.S. commercial exhibition held in Czechoslovakia, introduced several U.S. companies to the sophisticated Czechoslovak market for scientific instruments.

The eleven companies and the State of Illinois Dept. of Business Development, exhibiting with the U.S. Department of Commerce at the 14th Brno International Engineering Fair, projected sales of $1.1 million for the following twelve months.

Recognizing that it can take several years to establish a company firmly in a Socialist market, the exhibitors were unanimous in wanting to participate in next year's Brno Fair.

"We feel that our participation during this exhibition has given us excellent opportunities to meet prospective end users extensively, who would otherwise have been difficult to contact. We are pleased about the future market outlook and will definitely participate again," was the verdict of the representative for the Finnigan Corp.

The Director of International Sales for Orion Research, Inc., felt that "excellent contacts made with both government officials and end-users would have been impossible without the cooperation of the Department of Commerce. Our participation in next year's exhibit is a must," said Charles A. Rossiter.

## Buyers from all over

The Brno Engineering Fair enjoys an excellent reputation throughout Europe for its strictly commercial atmosphere and its organization. At Fair time, Czechoslovak scientists, engineers, and managers meet with foreign businessmen to discuss the newest products and processes. Brno attracts technical specialists from all over Eastern Europe as well as key Czech purchasers, who respect U.S. instruments for their advanced technology and high quality.

The eleven companies exhibited a variety of pH meters and controllers, mass spectrometers, gas chromatographs, electro-balances, data acquisition systems, and electronic programmable calculators. The Illinois Dept. of Business Development recruited two Illinois manufacturers to exhibit, brought a trade mission to the Fair, and operated a sales office to represent Illinois firms. The State's work uncovered opportunities projected at $150,000 for the first year.

The U.S. Embassy in Prague and the Department of Commerce again set up a Business Development Office at Brno. Catalogs from 97 manufacturers of bio-medical equipment were displayed, and an Associate Professor of Bio-Medical Engineering at Johns Hopkins University was present to assist medical specialists with information on products most suitable to their needs. Some 80 visitors provided 44 business opportunities for U.S. companies in the bio-medical field. The office also obtained leads for an additional 33 export opportunities in fields as diverse as food processing and advanced metallurgy.

## Northern California's Export Managers Organize

Formation of the Export Management Association of Northern California provides that area's producers with a valuable export tool. The new unit's five-member Steering Committee will be chaired by Nathan Most of TAICO International.

The group will promote exports by bringing manufacturers and export managers together, establishing professional standards for export management firms, and helping to solve export problems. The Northern California group is the ninth regional export management association in the United States, and has affiliated itself with the others through the National Federation of Export Management Companies in Washington, D.C.

PACKING THEM IN—*Near record attendance by Japanese businessmen featured the showing of U.S. laser and electro-optic equipment at the Tokyo Trade Center.*

# Laser Show Zaps Japanese Market

The U.S. Trade Center in Tokyo's recent exhibit of U.S. laser and electro-optic equipment, the first of its kind to be held in Japan, attracted a near record attendance of almost 3,500 business visitors.

"These products are a major step in scientific research," said one visitor, "we want more detailed information as we are groping in the dark."

Another prospective buyer said "I am pleased with the products on display. The show enabled me to see the most advanced technology of the USA. Seeing the actual products, we are induced to buy them."

The 37 U.S. exhibitors confirmed the high interest in their products, and many suggested a repeat showing to follow-up on the potential uncovered:

"We made many Japanese customers aware of RCA products that they didn't think we sold," said Howard F. Jafker, RCA's manager of Far East sales of electronic components.

"Participation was quite beneficial, since many more visitors came than we expected," said Akio Wake, sales engineer for Holobeam Inc.

"Hope you can repeat next year," summed up Roger Gilbert, Jr. president of Oriel Corp. of America.

Ten exhibitors were seeking representation in the Japanese market; four agents and distributors were signed during the show and negotiations were opened with another seven.

Floor sales of $250,000 were considered exceptional for the laboratory and research areas represented by this equipment.

Post-show market analysis concluded that U.S. companies have markedly superior technology in gas lasers (argon, helium, neon, nitrogen, CO), YAG lasers, high powered lasers, various types of holographic and industrial laser systems, infra-red equipment, photo detectors, and in the synthesis of large, sophisticated crystals (i.e. GGG, $Z_nO$, and ruby).

U.S. manufacturers also are able to make relatively more compact equipment cheaper than their Japanese competitors.

## Bombay Holds Leather Event

An All-India Finished Leather, Leather Goods and Leather Footwear Fair has been scheduled in Bombay Nov. 24-26. Admission to the Fair, to be held in the Taj Mahal Hotel's Crystal Room, will be restricted to professional buyers.

For details, contact W. N. Pandav, Secretary, Leather Club of Bombay, c/o Modern Tanners, 220 Dharavi Road, Bombay 400 017.

GETTING TOGETHER—*Roger Gilbert, Jr. (at left), president of Oriel Corp. of America, discusses the possibilities of representation for his firm's products in the Japanese market with a group of Japanese businessmen.*

## Worldwide Business Outlook

# Australia Growth Slowing; Some Signs Of Pickup Seen

The Australian economy is now in a period of restrained growth. Consumer spending has been sluggish and new capital spending has fallen off. Unemployment has reached 2 percent of the labor force, the highest level in ten years. There are some indications that business is picking up again.

### Report from Canberra

These are the highlights of a recent report prepared by the American Embassy in Canberra, which also makes the following points:

Price increases are uncomfortably high, but may have stopped accelerating. The Budget for FY 1973 is designed to stimulate spending. However, it could also add to inflationary pressures in 1973. The labor scene may see greater efforts to obtain wage increases outside of the arbitration system as well as further moves for a 35-hour week.

Australian exports have grown strongly. The largest trade surplus in 20 years and heavy capital inflow during the past year have added to Australia's international reserves, which are now $4.7 billion. Many observers believe that the Australian dollar is undervalued.

Development of Australia's rich mineral resources and eventually of related processing industries should provide the basis for further strong expansion of its economy. This will provide a continued attractive market for exports of U.S. goods and services.

While foreign investment is generally welcomed in Australia, some aspects are under close scrutiny.

With per capita income one of the highest in the world, Australia provides an attractive and growing market for goods and services. U.S. exporters already sell over $1 billion worth of goods annually to Australia and supply almost one fourth of its imports. However, high tariffs protect an extensive domestic manufacturing sector and make it difficult for many U.S. product lines to compete.

The best sales prospects are for capital equipment and products that incorporate the most advanced technology. These include machines and equipment for packaging, materials handling, testing and controls, transportation, excavating, mining and ore processing as well as computers, automated business machines, data communications systems, and engineering and technical services.

### U.S. services

The Australian market is highly competitive. Exporters from the U.K., Japan, France, Germany, Switzerland, and other highly industralized countries are making strong efforts to improve their sales to Australia. American exporters should be alert to every opportunity to enhance their competitive position. Several facilities offered by the United States Government can help.

The United States Trade Center for Australia, which is based in Sydney, can be used to supplement the regular sales promotion activities of American exporters. Firms may take part in regular programmed exhibits at the Center which feature specific product lines. The Center's facilities are also available to U.S. firms for individual promotional activities in the intervals between the regular exhibitions. Companies which have exhibited their products at the Center since it opened two years ago have reported highly successful sales and prospects.

The United States Export-Import Bank offers a program of loans and guarantees that can be adapted to virtually any situation for financing large purchases of U.S. goods and services or purchases on extended terms. U.S. firms interested in sales to Australia, or other countries abroad, should inquire about the advantages of using the

IN WESTERN AUSTRALIA—*American Ambassador to Australia Walter Rice is in the driver's seat of a 1929 Caterpillar tractor at the U.S. Trade Center pavilion at the 1972 Western Australian International Trade Fair at Perth. Others, from left, are Kevin Gordon, of the Caterpillar distributing firm; Mrs. Rice; Mrs. John A. Lacey, wife of the American consul in Perth, and Don Taylor, Western Australian State Minister for Labor and Housing. Ambassador Rice opened the U.S. pavilion.*

export financing programs and services of the Export-Import Bank.

Although the income tax rate structure was modified in the new budget, the Government has just authorized an inquiry into the whole tax structure. The inquiry is intended to recommend alterations of the existing tax system or new taxes to improve the working of the economy and better distribute the tax burden. It will be at least a year before the inquiry is completed. This could lead eventually to changes in rates and the structure of various taxes affecting business. It is still too early, however, to make any predictions.

**U.S. exporters should be aware that a full conversion to the metric system by a series of gradual changes over a five-year period is taking place in Australia. Requirements for marking of packages and revision of the customs tariff to show metric equivalents have already taken effect. Dates for conversions of specifications affecting other commodities and industries over the next few years have been established.**

Legislation to permit the Federal Government to apply stricter controls on restrictive trade practices and monopolies is being drafted. It will be presented to Parliament probably when decisions in several pending court cases have clarified several specific aspects of the Federal Government's powers in this field.

## Foreign investment watched

The Australian Federal and State Governments have in the past broadly welcomed foreign investment with very few limitations or restrictions. More recently there has been a tendency to look more closely at various kinds of capital inflow to determine to what extent it may serve Australia's national interests. Concern has been expressed by many Australians over possible domination by overseas interests, including American, of key sectors of the Australian economy.

AMERICAN PRODUCT PROMOTION—*This sailboat is participating in Australia's highly popular races this September-to-April season as a promotional venture. Its sponsors are Herculite Protective Fabrics Corp., New York; Herculite's Australian distributor, Nolan, O'Rourke, and the widely-known sailmaker, John Herrick. Herculite is aiming its line of specialty fabrics, including all-weather protective coverings, flameproof, antibacterial and deodorizing items, at the Australian market.*

There has also been concern that the flow of capital from abroad could work against government fiscal and monetary measures to control the economy. A Senate Select Committee on Overseas Ownership and Control is holding a public inquiry on foreign investment. Its report and recommendations will probably not be ready before the end of 1973.

***The Australian Government announced changes Sept. 26 in its policy on overseas capital. The new guidelines include establishment of an independent tribunal to consider overseas takeovers of Australian companies; abolition of guidelines on borrowing by foreign companies in Australia; relaxation of the ban on portfolio investment by Australians overseas; and a limitation on short-term borrowing overseas.***

***Overseas takeovers, in this context, are defined as the acquisition of 15 percent of the voting power of a company by one overseas interest or 40 percent of the voting rights by more than one interest.***

Steps may be taken to apply greater controls to the activities of non-bank financial companies. In recent years, there has been a notable development in Australia of financial institutions, apart from regular commercial banks, and of more varied concepts of financing. Government officials have expressed concern that the activities of these institutions are not subject to the regulations and controls (reserves, interest rates, etc.) that are applied to regular banking institutions to ensure that their activities conform to Government policies for management of the economy.

American and other overseas investors have been especially prominent in the non-bank financial field. Suggestions that controls should be extended in this area appear to be directed at the economic impact of the activities of such institutions rather than at any element of overseas ownership.

# Machinery Shipments Are Featured In Longer-Range Australia Trading

*A longer-term study of U.S.-Australia trade trends, undertaken in the International Trade Analysis Division of the Bureau of International Commerce, shows a general upward movement since 1965, though in an erratic pattern, and with some sluggishness apparent in recent years. Highlights of that study follow:*

Much of the irregularity in U.S.-Australia trade has stemmed from fluctuating deliveries of civilian aircraft and military goods which in some years accounted for as much as one fifth of total deliveries. Machinery generally comprised a third of the total during this period, while the remainder consisted mainly of road motor vehicles and parts, chemicals, and various manufactures.

A major part of the gain in this country's share of the Australian market in recent years has been at the expense of the United Kingdom, whose traditional position has weakened despite residual Commonwealth tariff preferences. Japan, too, has benefited from the diminished British role.

In 1971, U.S. deliveries exceeded $1 billion for the first time and again led those of other suppliers. For the first eight months of 1972, however, U.S. shipments to Australia have fallen off by 15 percent. A decline in aircraft deliveries accounts for more than half the decrease although sales of several types of machinery have also dropped.

**U.S. Trade With Australia**

| Year | U.S. Exports | U.S. Imports |
|---|---|---|
| | *Millions of dollars* | |
| 1965 | 797.4 | 312.7 |
| 1966 | 652.5 | 397.7 |
| 1967 | 892.6 | 407.8 |
| 1968 | 871.6 | 488.0 |
| 1969 | 855.3 | 587.9 |
| 1970 | 985.7 | 610.9 |
| 1971 | 1,004.0 | 619.5 |
| | *Percent change* | |
| 1965-71 | +26 | +98 |

Source: U.S. Bureau of the Census.
Note: Data through August 1972 indicate that exports are down 15 percent and imports up 30 percent from the comparable period of 1971.

Reflecting strong Australian demand for capital equipment, U.S. exports of machinery rose by more than one quarter from 1965 to 1971 and supplied around 35 percent of the market. A major part of the machinery has been equipment for the expansion and development of the rapidly growing mining and minerals processing industry.

Since 1960, when restrictions on the export of iron ore were lifted, the flow of foreign capital into that sector has increased and the search for new mineral deposits has taken on the aura of the gold rush days. Recent discoveries have boosted reserve estimates from 400 million tons to over 20 billion tons of high grade iron ore. Large deposits of other minerals, including nickel, lead, zinc, and bauxite also exist. Estimates indicate that U.S. investors control more than one quarter of the value of Australian mineral production.

Construction and mining equipment, one of the fastest growing U.S. exports to Australia, almost doubled in value over the six-year period. U.S. products totaled $55 million in 1971 to account for about two thirds of the import market. At least half of these sales consisted of parts and attachments, some of which were destined for local assembly operations.

Other types of machinery closely associated with the mineral industry, such as materials handling equipment, have also been imported into Australia at a rapid pace since 1965. The recent significant finds of oil and natural gas have reduced Australia's dependence on imports of these fuels but, conversely, have increased the demand for the pumps, valves, and centrifuges needed for their extraction. This type of equipment is also utilized for irrigation. Deliveries from the United States have grown vigorously since 1965, boosting this country's share of the market to about 40 percent.

U.S. exports of non-road tractors, consisting mostly of the heavier and tracklaying types, remained sizable until 1971. Sales that year slipped sharply from their 1970 total of $25 million to only $14 million, due largely to increased local assembly and, temporarily, to drought conditions.

Mirroring the overall pattern of demand, sales of U.S. office machines have been erratic. In 1965 and 1966 shipments expanded rapidly as Australian adoption of a decimal monetary system necessitated replacement or changeover in cash registers, bookkeeping, accounting, and similar machines. Demand fell sharply the following year once this program was completed.

## Computer exports level off

U.S. exports of computers, on the other hand, remained at a modest level until 1969 when deliveries more than doubled. Shipments continued to expand the following year but at a slower rate, while in 1971 they leveled off at about $28 million.

The Australian market for internal combustion engines, other than those for aircraft, has exhibited strong albeit uneven growth. Shipments from this country, consisting primarily of diesel engines and parts, declined moderately in 1971 from their 1970 peak of around $40 million. A significant amount of this equipment goes to U.S. subsidiaries for assembly.

During the period, U.S. exports of aircraft engines remained relatively stable at about $10 million per year. In 1971, however, sales, especially of parts, nearly doubled over their prior levels to almost

## Aircraft Leads U.S. Exports To Australia By Wide Margin

| Commodity | Value 1965 | Value 1971 | Change 1965-71 |
|---|---|---|---|
| | *Millions of dollars* | | *Percent* |
| Total | 797.4 | 1,004.0 | + 26 |
| Aircraft and parts | 63.2 | 181.0 | +186 |
| Construction and mining equipment | 25.6 | 55.0 | +115 |
| Parts for motor vehicles | 34.9 | 52.9 | + 52 |
| Internal combustion engines | 19.5 | 33.7 | + 73 |
| Organic chemicals | 20.0 | 28.7 | + 44 |
| Electronic computers | 9.3 | 27.3 | +194 |
| Mechanical handling equipment | 16.2 | 23.1 | + 43 |
| Textile yarn and fabric | 23.3 | 23.0 | − 1 |
| Instruments | 19.4 | 31.4 | + 62 |
| Aircraft engines | 10.9 | 19.2 | + 76 |

Source: U.S. Bureau of the Census.

$20 million, reflecting the upsurge in deliveries of civilian planes.

American exporters have failed to maintain their position in the Australian market for electric machinery which grew by almost two fifths to about $300 million in 1971. U.S. deliveries expanded moderately until 1968 when they reached $75 million. Since then, sales have declined each year as competition from Japan and the United Kingdom has stiffened. Nevertheless, this country continued to supply a wide variety of such equipment, especially instruments for testing, measuring, and controlling, as well as telecommunications apparatus.

### Auto industry booms

The expansion of assembly and manufacturing operations in Australia by the big three American automotive companies has resulted in a rapid increase in U.S. exports of parts, for both assembly and replacement. Shipments of U.S. parts rose by more than 70 percent since 1965 to reach nearly $40 million in 1971 despite the Australian Government's policy of increasing the local content of domestically produced automobiles.

The required local input varies according to a firm's share of the market and runs as high as 95 percent. This policy has led to decline in U.S. sales of unassembled automobiles, which dropped from $30 million in 1965 to less than $2 million last year. Partially compensating for this loss, however, U.S. sales of trucks and special purpose vehicles grew moderately throughout most of the period, peaking at $26 million in 1970 before dropping to less than half that level in 1971.

Boosted by stepped up deliveries of large commercial transports, U.S. sales of aircraft exceeded $100 million in both 1967 and 1968 but dropped to earlier levels in the following two years. In 1971, however, exports of commercial aircraft reached new heights, jumping to $181 million. Shipments of aircraft parts, meanwhile, were also substantial. Because of its wide expanse of territory, Australia has also been a buoyant market for personal and utility planes, although sales have slowed considerably in recent years.

U.S. shipments of chemicals to Australia rose by more than two fifths over the six-year period to $100 million, although growth was uneven. The bulk of the gain came from expanded deliveries of organics, the fast rising inorganics group, and plastics and resins.

With adequate domestic supplies only of woolen textiles, Australia imports large amounts of fabrics, yarn, and thread of cotton and manmade fibers from foreign producers, principally Japan. U.S. exports of these products, including regenerated and synthetic yarns and fabrics, as well as floor coverings and carpets, have been in the range of $20 million to $25 million over the past several years.

Paper and paperboard have been another essential import for Australia since high quality paper has not been widely available from domestic sources. U.S. sales have accounted for about one fifth of the market. This country also supplies substantial printed matter, especially textbooks and technical material, which, because of the limited market in Australia, are generally uneconomical to publish domestically.

### U.S. imports double

The patterns of U.S. imports from Australia largely reflects the flow of three product groups: meats, certain minerals, and wool. Although annual increases have been irregular, the U.S. intake of Australian products from 1965 to 1971 more than doubled to $620 million, making this country Australia's second leading market.

By far the major U.S. import from Australia is meat, principally boneless and frozen beef. Beef purchases have grown almost uninterruptedly since 1965 to $267 million by 1971, or more than two fifths of this country's total. U.S. imports of beef are subject to quota, but in June these limitations were lifted for the remainder of 1972. Largely because of the sharp influx of beef, well up even before June, U.S. imports from Australia have surged by 30 percent through August 1972.

## U.S. Imports Of Beef, Alumina Up, Wool Down

| Commodity | 1965 | 1971 |
|---|---|---|
| | *Millions of dollars* | |
| Lead | 13.9 | 10.1 |
| Wool | 73.3 | 14.0 |
| Lamb, mutton | 7.2 | 19.5 |
| Titanium | 10.1 | 21.7 |
| Sugar | 22.9 | 27.8 |
| Shellfish | 18.6 | 37.6 |
| Alumina | 0 | 59.1 |
| Beef | 101.5 | 267.1 |

Source: U.S. Bureau of the Census.

# Indonesia's Fast Growing Market Requires Bold, Innovative Approach

Indonesia remains one of the most important and fastest growing areas for trade and investment in Asia.

Several new factors are increasing Indonesia's basic attraction and potential, despite some disadvantages and certain growing uncertainties. Unfortunately, according to the U.S. Embassy in Djakarta, the U.S. competitive position faces possible erosion. Bold and innovative efforts, particularly in financing, will be required if the United States is to participate fully in the growing opportunities.

## Continued growth

Government sources estimate real growth of GNP at 7 percent in 1971, and about the same for 1972. Continued growth is anticipated because gross domestic investment is apparently increasing steadily as a percentage of GNP. Continued rapid expansion of credit has been one of the major forces stimulating the strong growth of domestic investment.

The average GNP growth of 7 percent hides widely divergent rates of sectoral growth. By far the fastest growth has occurred in oil and minerals, construction, forestry, trade and manufacturing. By contrast, the agricultural sector, which accounts for half of Indonesia's output by value and three fourths of its employment, appears to be increasing at only a 3 to 4 percent rate.

Wide geographic disparities are also increasingly visible as industrial and oil-related developments have concentrated in Djakarta and the north coast of West Java. Oil and timber developments have turned East Kalimantan into a boom area. Progress in Central and East Java appears painfully small by contrast.

The export sector is one of the fastest growing in 1972. After an impressive 17 percent improvement in total exports in 1971, a 40 percent gain is expected this year. Oil and timber accounted for 85 percent of the 1971 export gains. In 1972, these products will more than account for the improvement, as the value of many traditional exports is expected to continue to decline.

After a 4.5 percent increase in petroleum production volume in 1971, the steady growth of exploitation and development expenditures have brought in new fields which could add 30 percent to production volume in 1972. Indonesia's production is expected to rise from an average of about 890,000 b/d in 1971 to an average level of 1.2 million b/d in 1972 and a year-end level of roughly 1.4 million b/d.

The confidence inspired by Indonesia's favorable political and economic accomplishments to date has generated impressively increased support for its development efforts. In April 1972, the 12 donor countries and two major international financing organizations of the Inter-Governmental Group on Indonesia (IGGI) pledged $50 million more than the $675 million aid requested by the Indonesian Government. The $725 million pledge was 15 percent higher than the aid pledged in 1971.

Other confidence indicators promising sustained growth are the continued rapid increases in domestic time deposits, the dramatic increase in domestic investment approvals, and the continued strength of foreign investment approvals.

Public and private investment—among the main determinants of future growth—remain among the fastest growth sectors. A further increase in the ratio of gross domestic investment to GNP, from a low of 8.5 percent in 1968, to something over 13 percent in 1972, appears assured.

Indonesia's effective market potential is severely restricted by its low average level of personal income, variously estimated to be between $70 and $110 per capita. For most manufactured consumer commodities, only the 25 million people living in urban and adjacent areas constitute an effective market.

Trading with Indonesia is difficult. Foreign competitors are closer to Indonesia, know the market better, and frequently offer better price, credit and delivery terms. Average import duties remain high, cargo damage in port is considerable, smuggling and evading or minimizing duties is common, and distribution, restricted to Indonesian nationals, remains inadequate.

## U.S. sales are rising

However, enterprising American firms have found these difficulties surmountable and non-aid U.S. exports to Indonesia are increasing substantially, partly in association with accelerated implementation of investment projects.

In 1971, total U.S. exports to Indonesia amounted to $263 million, 1 percent less than in 1970, because of a decline in aid-financed shipments. In January-August 1972 they were valued at $196 million, 12 percent more than in the same period of 1971.

In June, the Government appointed a new Director General of Customs who is highly regarded as an honest and effective administrator. Important changes are now expected in customs operations.

In 1972, Japan has pledged more non-food aid to Indonesia than the United States, $150 million vs. $138 million, respectively. Just after the aid-pledging meeting in April, Japan agreed to an additional $207 million loan for oil exploration and development. In addition, IDA and ADB project aid increased to $145 million, $40 million over the previous year. The remaining donors increased aid by a higher percentage

than the United States and future U.S. aid levels are uncertain. Despite some untying by certain donors, U.S. suppliers are likely to face a declining share of the concessionally financed market unless extraordinary efforts are made to compete for untied aid financing.

Suppliers from Asia are accustomed to granting credit to Indonesian importers, particularly from Hong Kong and Singapore. Increasingly, European and Japanese suppliers are able to get government-subsidized or assisted credit from home government agencies for sales to Indonesian buyers.

The credit factor becomes highly important in Indonesia, where local interest rates range from 12 to 36 percent per year, particularly for U.S. suppliers with longer lead times and higher freight costs than competing suppliers. As a recent U.S. textile machinery mission discovered, credit terms, more than quality or price, often turn the deal. Apparently, European and Japanese agencies consider the risks acceptable because of current opportunities and future market potential.

The one advantage U.S. firms have is the U.S. predominance among foreign banks in Indonesia. American Express, Bank of America, Chase and First National City Bank all have branches. Continental Illinois and Marine Midland have representative offices. If the Government of Indonesia proceeds with plans to permit establishment of investment banks and additional development banks, these and other U.S. banks may be able to provide longer-term financing, which would greatly assist U.S. equipment exports.

Foreign investment has been a subject of increasing discussion in 1972. In addition to sectors generally closed to foreign investment, the Government has recently been more selective in granting tax holidays to foreign investments and more severe in judging which investments are in Indonesia's best interest. Increasing attention is being given to encouraging more labor intensive forms of investment, and to limiting further concentrations of investment in Djakarta and the surrounding area. Concern is also increasing about possible adverse consequences of foreign investment for domestic business.

**DJAKARTA BRANCH**—*Several U.S. banks have offices in Indonesia, and they may soon be able to assist U.S. equipment exporters by providing longer-term financing.*

Difficulties of determining customs and other tax liabilities, and the slow and complex processes of project approval, incorporation, land rental, business licensing and other procedural obstacles to implementation discourage a considerable volume of potential investment. While the Foreign Investment Board has a respectable record in approving projects, Indonesia does not offer any of the facilities to project implementation which one finds in other Asian countries.

## Above average rate

Nevertheless, new foreign investment project approvals continue at an above average rate, about $160 million for the first half 1972.

Cumulatively, the heaviest foreign investments outside of oil and mining have been in forestry, textiles, hotels and tourism, chemicals, pharmaceuticals and miscellaneous light manufacturing. In the mineral sector, the major investments have been in nickel and tin where increases in production value have been greatest. Large investments are planned or under way in copper, nickel and bauxite.

Japanese, Singapore and Hong Kong investments are coming to Indonesia at an accelerating rate. The opportunities for the United States and other western countries to compete from the low wage base of Indonesia may soon be preempted unless the opportunities are considered as they develop and followed up quickly.

The United States still predominates in overall value of investment, and in investment expenditures in the oil and minerals sector particularly, as several major mining projects are under way and at least one other appears imminent. The growth of U.S. investment expenditures contributed to the rapid rise in U.S. commercially financed exports to Indonesia over the past two years. While continued growth of oil expenditures and completion of approved projects will sustain U.S. commercial export growth, a recent decline in U.S. investment proposals could slow the rate of growth somewhat after 1972, at least until pending minerals projects begin.

# Iran's Sustained Forward Progress Keeps It An Attractive U.S. Market

The Iranian economy continues to move forward briskly.

Sharply rising oil revenues, large public sector outlays, expanded industrial output, and an improved outlook for agriculture should assure a continuation of this remarkable growth, according to the U.S. Embassy in Tehran.

Foreign exchange reserves recently hit a record high, and the balance of payments should be in surplus this year. Deficit financing, the rising cost of imports and a significant rise in liquidity have induced a 7-8 percent annual rise in prices, a level of inflation which will probably persist into early 1973. Iran's dependence on external credits will continue but debt servicing problems appear to be manageable.

Political stability and an ambitious and successful development effort have combined to make Iran a most attractive and promising market for U.S. producers and investors. Growing oil revenues and a continuing ability to attract external resources underwrite a rapidly rising level of imports and investment and a remarkable rate of economic progress.

Iran's imports for the Iranian year ending March 21, 1973 are expected to total about $3.0 billion, and another $370 million has been allocated to cover the cost of external services. In consequence, foreign firms and financial institutions are intensifying efforts to exploit Iran's large and growing commercial potential.

## American participation

American business has been actively participating in this process, and efforts to establish new dealerships and enlarge and reinforce existing trade relationships have met with substantial success. At present over 1,600 U.S. companies are represented locally, a testimony to the importance that U.S. business attaches to the Iranian market.

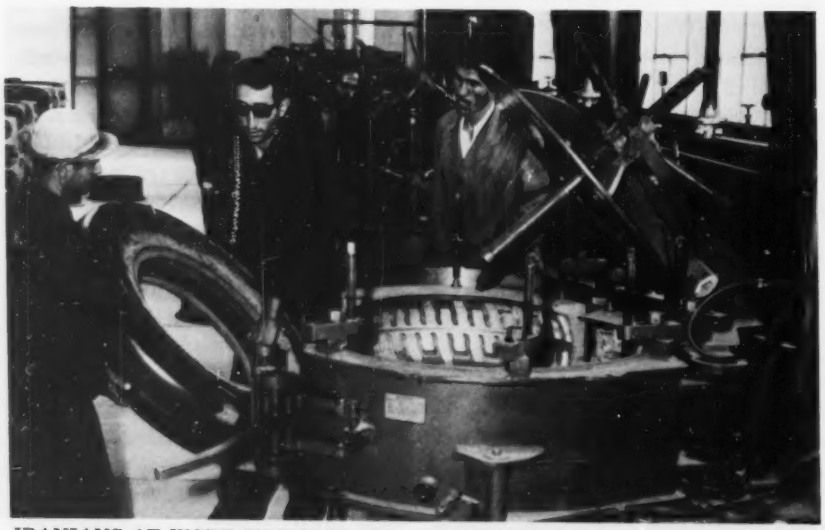
American firms selling to Iran face keen competition from both Western European and Japanese business. Foreign companies carefully cater to the needs of the Iranian market and generally offer attractive financing and servicing.

The U.S. Export-Import Bank continues to support the American commercial effort in Iran strongly, and early commitments on financing continue to be an essential element in concluding important contracts. Iranians are experienced comparative shoppers and such considerations as advanced technology, product reputation and quality, and well established post sale support facilities often take precedence over price.

The December 1971 changes in currency parities—the devaluation of the dollar and Iran's decision to maintain the rial on a parity with the U.S. dollar — materially enhanced the sales potential of American products in Iran and have resulted in a rising level of U.S. exports to this area.

A spectacular $155 million jump in 1971 exports permitted the United States for the first time in a decade to supplant West Germany as Iran's largest supplier. The U.S. share of the Iranian market in 1971 increased to over 21 percent and first quarter 1972 trade statistics and an anticipated $40 million in sales from a highly successful U.S. exhibition of industrial and medical equipment in Tehran (USIME '72) indicate that American business in 1972 will again supply about 20 percent of Iran's import requirements.

As in the recent past, American suppliers of heavy construction equipment, agricultural implements, refrigeration, air-conditioning and heating equipment, office machines, communications and electronics equipment and facilities, medical, hospital and laboratory supplies, food packaging and processing equipment, electrical, textile and metal working machinery and automotive parts, servicing equipment, and fittings appear to have the best prospects for sales to the Iranian market, but expanded activity in petroleum, metals, mining, communications, and agriculture would also seem to offer new opportunities for U.S. business.



IRANIANS AT WORK IN U.S. PLANT—*This American-owned tire manufacturing facility is located in Tehran. U.S. business interest in Iran is increasing steadily.*

Of special mention has been the swift growth of public sector imports. Plan Organization appropriations for transportation, power, and education have been increased appreciably, and new stress has been placed on agriculture, housing and rural and urban development. Government imports will exceed those of the private sector by over $200 million in the current Iranian year and U.S. business should give appropriate consideration to this growing volume of public sector procurement.

### Trade opportunities

A $200 million petroleum pipeline from Tehran to Tabriz, a major $50 million expansion of the Tehran Telephone network, and construction of a large, $200 million dam project in the Lar Valley are only some of the numerous and significant trade opportunities which are currently being offered to qualified and well-represented forign firms in Iran.

Key Iranian leaders appreciate their country's need for technology and foreign expertise and have been generally pragmatic in their approach to the foreign investor. The anticipated expansion of oil production, and development of the LNG industry could, over the next few years, result in a possible doubling or trebling of local foreign investment and further consolidation of Iran's position as one of the world's foremost suppliers of raw materials and petroleum products.

Moreover, investment during the Fifth Development Plan period may total as much as $30 billion with emphasis on infrastructure, mining, and agriculture. Discovery of a major copper site in Kerman in addition to the proved deposit at Sar Chemsmeh is only the latest in a series of significant new business prospects. Investment guaranty applications of U.S. companies now total about $65 million, an indication of the growing interest of U.S. businessmen in Iran.

# Investment Drop, Payments Problem Threaten To Stem Jamaican Boom

Jamaica's upward momentum may soon encounter increasingly formidable obstacles. At the same time, reports the U.S. Embassy in Kingston, a further decline in imports of capital equipment seems likely.

In spite of a leveling off of investments in the bauxite alumina and tourism sectors, GNP and per capita income again reached record levels of $1,253 million and $602 respectively in 1971. Manufacturing gained 5.3 percent, and tourism receipts 14.1 percent. The financial and distributive sectors put in strong performances. Some recovery in agriculture was a positive factor.

Labor difficulties, along with reduced foreign investment, contributed to a slowdown in construction in late 1971 which has continued in 1972. Nevertheless, governmental spending for infrastructure and school programs supplemented activity in industry, hotel and residential construction, and construction and installation advanced 3.5 percent for the year as a whole.

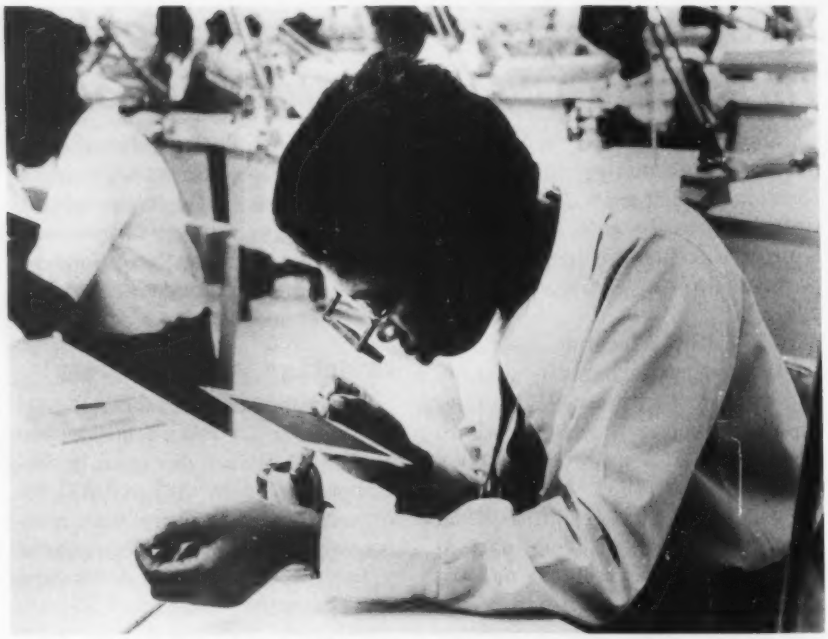
A decrease in the value of alumina exports, in response to soft international market conditions, restrained international trade growth to 3.3 percent.

### Advantage was temporary

The Jamaican dollar, officially set at £ sterling 0.50, appreciated when the United States devalued in December 1971, to J$1 = US$1.30. However, the advantage for American suppliers largely disappeared by July, when it floated downward with the pound to J$1 = US$1.20.

Although the balance of payments surplus reached $27.9 million in 1971, and brought reserves to a record $194.7 million, the prospects are for emergence of a substantial balance of payments problem in the 1972-1973 time-frame. For some years, Jamaica's rising imports of consumer and capital goods have been covered by major inflows of foreign capital. With an

KINGSTON FACILITY—*Key-punchers keep busy at Compuentry Ltd., the Kingston operation of International Compumedics, New Jersey, one of several U.S. data conversion firms operating in Jamaica under its Export Industry Encouragement Law.*



CORE-STRINGING IN JAMAICA—*Dexterous worker weaves wire of computer memory core at Kingston subsidiary of Caribbean Components, Cedar Grove, N.J.*

anticipated pause in tourist building because of room over-capacity and with completion of major bauxite alumina projects, capital inflows are likely to continue the drop begun in 1971 and to convert the overall balance of payments surplus into an overall deficit.

The government's balance of payments defensive measures will probably include raising the Bank of Jamaica rate, raising commercial bank asset ratios, stricter controls on foreign exchange transactions and an export drive. The Government will also be studying use of voluntary restraints on imports of consumer goods, and wage-price controls.

The market for capital equipment and possibly consumer goods is weakening in 1972, but U.S. suppliers are in a good position to supply a major portion of Jamaica's diversified import list. The tourist industry continues to offer supply opportunities for catering equipment and glassware, prepared foods, fresh and frozen vegetables, specialty meats, and meat preparations.

The expansion of domestic feed mixing operations has reduced the market for mixed feeds but increased the market for feed components, such as corn. The coconut industry is unable to satisfy the market for oils and shortening, and there are opportunities for exports of soybean oils, but in the face of stiff competition from European marine oils. There is a market for raw materials and fertilizers.

## Changes are unlikely

Although Jamaican protective schemes for local industry are under fire for providing Jamaicans high-cost, low-quality goods, major changes are not expected. During 1971 and into 1972, a continual procession of items have shifted to an import category which requires issuances of licenses. In the future, however, before investments are granted approved status, they will be examined carefully for their ability to supply products competitive in price and quality with imports.

Prime Minister Manley, prior to his election victory, asserted in a formal statement on his party's investment policy that Jamaica had a right to regulate foreign investment, a duty to extract from such investment maximum benefits for Jamaica, and an obligation to uphold agreements with the foreign investor once they are struck. Manley added that this effectively precluded ex-post-facto legislation directed at existing investments since this would destroy the climate of confidence needed to attract investments essential to development.

## Statements on policy

Since the installation of the new administration, ministerial statements on policy towards business have had a somewhat nationalistic and populist ring. Positively, the Government moved to depoliticize the treatment of Jamaica's utilities. The Jamaica Public Service Co. (electricity) received a long delayed rate increase. The new administration is studying and will probably broaden the "Jamaicanization" program of its predecessor, whose main elements involved transfer to Jamaican ownership through the market mechanism of the controlling interest in banks and insurance companies. Auto rental firms were first on the government's list.

A rising level of expectations fed in part by election campaigning has contributed to increased labor difficulties in 1972. Employers anticipate a more difficult industrial relations climate caught between the demands of Jamaica's well unionized and scrappy labor force and Government interest in expanding price controls. Balancing this, investors could expect generous incentives, protection, and financial help for soundly conceived job-creating projects from the Jamaica Development Bank and the Jamaica Industrial Development Corporation. Major economic problems faced by investors often include labor productivity, high support costs, and a limited domestic market of two million. There are possibilities for protection and opportunities to export duty-free and quota-free to a CARIFTA market of an additional two million.

# Economy Of Chad Is Still Growing At Modest Pace

The economy of Chad is growing at a modest pace, despite government financial difficulties. The big underdeveloped central African country continues to be a small market for U.S. products, but it offers some potentially profitable investment opportunities.

The Chadian Government's financial condition has become critical, reports the U.S. Embassy in Fort-Lamy. Rates of customs and excise taxes, the principal sources of government revenues, are very high, encouraging smuggling which decreases sales by legitimate business. Since potential new sources of revenue are limited, and with little possibility of private capital accumulation, Chad will have to continue to rely primarily on foreign sources for investment capital.

The balance of payments has improved significantly in the last two years, primarily because of large transfers of French aid.

## Moderate gains

Chad's 1971-72 cotton harvest showed moderate gains over the poor 1970-71 crop. Fortunately for Chad, improved market prices have largely offset the disappointing harvests.

Chad's small industrial sector also made moderate gains in 1971. The brewery in Moundou inaugurated a new bottling line early in 1972. Construction began on an expansion to the textile plant in Sarh (formerly known as Fort Archambault), and a Coca-Cola bottling plant is planned for Fort-Lamy with construction to begin late in 1972. Conoco-Shell continues to explore for petroleum.

Chad's balance of trade was in deficit by $34.2 million in 1971 and exports covered only 45 percent of imports. However, the figures are distorted by inclusion in the import figure of goods given by aid donors.

After years of rapid growth beef carcass exports by air fell to 11,600 tons in 1971, and dropped even further in the first months of 1972. Recent large increases in the price of Chadian beef have caused Zaire, formerly the principal market, to diversify its sources of supply, drastically reducing imports from Chad.

The Chadian Government is trying to open new markets for beef carcass exports by air. An addition to the Fort-Lamy slaughterhouse (from which all beef carcass exports originate) is still planned for 1972. The decrease in beef carcass exports has probably been more than compensated for by increased exports on the hoof to Nigeria.

Chad and Zaire together form the Central African Economic Union (UEAC). However, except for Chadian exports of chilled beef carcasses to Zaire, there has been little trade between the two countries.

At their July 1972 summit meeting the heads of state of the members of the Lake Chad Basin Commission (Chad, Cameroon, Niger and Nigeria) decided to create two special organisms, one for livestock and meat marketing and the other for agricultural products, but it will be some time before these organizations begin operations.

Chadian trade is inhibited by high transport costs, estimated to account for about 28 percent of the average c.i.f. figure for imports from Europe. Due to poor surface connections linking Chad to the sea many imports and exports are air freighted. Completion of the Trans-Cameroon railroad to Ngaoundere, Cameroon, scheduled for 1974 or 1975 and construction of an all-weather road between Ngaoundere and Moundou, Chad, now under consideration by the European Common Market Development Fund, may help lessen Chad's isolation. Such a link would be especially helpful in facilitating export of Chad's cotton crop.

Prospects for increasing the U.S. share of the Chadian market are limited. Chad gives a substantial tariff advantage to its EEC Association partners. The market and local consumption patterns are oriented toward France, and most major importing firms are European owned and operated.

## Some products do well

Despite these factors, a few U.S. products are imported by Chad and in several lines—earthmoving equipment, outboard motors, air-conditioners and cotton processing machinery — dominate the local market. Total imports from the United States in 1971 were valued at $2 million.

Chad has clearly demonstrated its desire to attract private foreign investors. The Chadians have signed an Investment Guaranty Agreement with the United States and are willing to offer liberal tax and customs concessions. Because of its small, widely dispersed population (estimated at 3.6 million) and low per capita average annual income (estimated at $70) Chad offers only a limited market for consumer products. However, potentially attractive investment opportunities do exist in the development of tourist facilities, gum arabic processing, hide tanning and mineral prospection.

# Inter-American Arbitration Meeting Set For Guatemala

The Fourth Inter-American Conference on Commercial Arbitration is scheduled to be held in Guatemala, Nov. 9-10. The Chamber of Commerce of Guatemala is the host for the Conference which is being organized under the auspices of the Inter-American Commercial Arbitration Commission.

For details write Charles R. Norberg, General Counsel, Inter-American Commercial Arbitration Commission, 310 Federal Bar Building, West, Room 1819, Washington, D.C. 20006.

# Japan Takes Several Steps To Help U.S. Trade Position

Japan has taken a number of steps which improve the outlook for U.S. exports to Japan and for some reduction in the large U.S. trade deficit with Japan. These steps, which are an outgrowth of U.S.-Japan economic discussions held at Hakone, Japan in July, and were referred to in the summary of President Nixon's meeting with Prime Minister Tanaka *(Commerce Today,* Oct. 2, Page 37), include:

**Increased agricultural imports**—The Japan Food Agency will purchase an additional 75,000 tons of wheat and 350,000 tons of feed grains and will substitute imported feed grains for 400,000 tons of rice which was to be used as feed for livestock. The value of these special agricultural purchases is estimated at about $50 million. In addition, increases over the previous year in imports of other agricultural, forestry and fishery products from the United States are expected to amount to approximately $390 million in Japanese Fiscal Year (JFY) 1972 (ending March 31, 1973). Total imports of agricultural, forestry and fishery products from the United States for JFY 1972 are estimated at $2.2 billion, the highest such exports by the United States to any country.

**Aircraft purchases** — Japanese commercial airlines plan to purchase from the United States civil aircraft valued at $320 million. The Japanese Government also expects to purchase helicopters and aviation related facilities valued at $20 million.

**Uranium ore enrichment**—Japanese power companies will purchase $320 million in uranium enrichment services from the United States. The establishment of a working group to study the feasibility of constructing a $1 billion joint U.S.-Japan uranium enrichment facility in the United States will be facilitated.

**Establishment of U.S.-owned retail stores**—The Japanese Ministry of International Trade and Industry will, in principle, approve the establishment of retail stores owned up to 100 percent by U.S. companies or citizens, with not more than 11 stores per applicant, within the existing rules on foreign investment. Such stores may retail U.S. products, including products which are made in Japan or in third countries under U.S. license and which bear the U.S. brand names of the American manufacturing or distributing firm, as well as such Japanese products as are necessary for the sale of U.S. products.

**Computer market share increased** — The Japanese Government will permit an increase in the share of the Japanese market of imported computers and computers manufactured in Japan by foreign-controlled firms to 50 percent of deliveries by value from their present level of about 46 percent. Peripheral equipment, but not spare parts, will be included in the 50 percent limitation. The Japanese Government will also give "favorable consideration" to applications for investment in up to 100 percent foreign-owned computer sales and service facilities and will welcome participation by American computer firms in the Japan Electronic Computer Co. (JECC). The JECC is a private computer-leasing company in Japan which is capitalized by the six Japanese-owned computer companies and presently leases only their computers. The Japanese Government has indicated it will fully liberalize the importation of electronic computers "when Japanese electronic computer firms will be able to have an equal footing with foreign or foreign-owned firms."

**Packaging and minor processing** —The Japanese Government will give sympathetic consideration to applications for the establishment in Japan of 100 percent U.S.-owned firms for packaging and minor processing. Approvals of such applications will permit wholly American-owned companies in Japan to import commodities in bulk and to package them for distribution as well as to perform minor processing.

**"Buy Japan" Government procurement decree revoked** — The Japanese Government has revoked the "Buy Japan" Cabinet Decree of Sept. 20, 1963 which encouraged government agencies to purchase their requirements from Japanese sources. Henceforth, government agencies will be free to buy foreign products, except electronic computers and peripheral equipment. The U.S. Embassy in Tokyo is prepared to assist U.S. firms in obtaining information and submitting bids on Government contracts.

**Licensing simplified** — Procedures for importation of products for gifts or personal use valued at less than $1,000, or for samples and advertising material, not for resale, valued at less than $2,000 will be considerably simplified. This procedure does not apply to goods restricted by import quotas. The automatic approval licensing system will be abolished "as soon as possible."

## Finns Offer Help In USSR

U.S. firms which are not exhibiting their goods in the Soviet Union because of the special problems involved can get special assistance from firms such as the Finnish Fair Corp., which has been setting up shows in Russia since the 1950s. The address is: Finnish Fair Corp., 00250 Helsinki 25, Finland. Tel: 440011.

# International Business Reports

**Tax Allocations and International Business. Published by The Conference Board, Inc. 97pp. $17.50.**

The Conference Board is an independent, nonprofit business research organization. In this study it focuses on a technical, but controversial area of tax administration—Sec. 482 of the Internal Revenue Code. Under this section the IRS can reallocate income and expenses from one controlled company to another when it believes the affiliation has affected the economic results of the companies' transactions. Decisions arising out of this section of the Code, reports the Conference Board, have cost some companies many millions of dollars and threaten to have a similar impact on others. Because of the ambiguity of the law and administrative rulings, and because of the rising tide of dissatisfaction on both sides, the Board goes on, changes in Section 482 are currently under review by the Treasury Department. This study draws together the Section 482 experiences of more than 500 U.S. companies, and contains a cross section of changes in the law suggested by businessmen.

**Write:** The Conference Board, Inc., 845 Third Ave., New York, N.Y. 10022.

**Economic Survey on Japan. 78 pp. Economic Survey on Germany. 82 pp. Published by the Organization for Economic Cooperation and Development. $1 each.**

After a brief outline of economic developments until the end of 1971, the Japan Survey describes, in Part II, the fiscal and monetary policies applied so far and examines possible methods of additional fiscal stimulus. The following section discusses short-term prospects for demand, output and prices. Part IV examines balance of payments trends and prospects, Part V contains an analysis of certain policy issues, and the final section summarizes main policy conclusions.

The first two parts of the German Survey discuss short-term economic developments, in particular the impact of the international currency crisis and exchange rate movements under the floating rate and wider band regime. Part III considers longer term trends and their possible implications for macroeconomic and budgetary developments in the next five years. Part IV summarizes.

**Write:** OECD Publications Center, Suite 1305, 1750 Pennsylvania Ave., N.W., Washington, D.C., 20006.

**Marketing Conditions Abroad — Switzerland. Published by Business International. 116pp. $40.**

Subjects discussed include corporate planning—market dimensions, growth trends; export and shipping — supplying from abroad, warehousing, transportation; finance — wholesale-retail credit terms, leasing; and legal—consumer protection, rules of competition, legal limitations, contract cancellations.

**Write:** Business International S.A., 757 Third Ave., New York, N.Y. 10017.

# Calendar For World Traders

**Oct. 17—Memphis**—Port of New Orleans Conf., Ellis Auditorium. Sponsor: World Trade Club.

**Oct. 18—Akron, Ohio**—Workshop Conference on Trade and Investment Possibilities with the Socialist Republics of Eastern Europe, 9 a.m.-4:30 p.m., Downtown Holiday Inn. Speakers include James L. Mitchell, Special Assistant to the Secretary of Commerce for Policy Development. Sponsors: U. of Akron, International Trade Council of Akron Chamber of Commerce.

**Oct. 19—Stratford, Conn.**—Connecticut REEC dinner meeting on export document simplification, Valle's Restaurant, 6-9 p.m.

**Oct. 24—Danbury, Conn.**—First of seven weekly export seminars at Chamber of Commerce, 7-9 p.m.

**Oct. 26—Cleveland**—First of seven weekly international trade workshops on better understanding of import procedures. Sponsor: Cleveland World Trade Assn.

**Oct. 26—Columbus, Ohio**—Ohio Executive Conference on Exporting and Export Financing. Sponsor: Eximbank, Cleveland World Trade Assn.

**Oct. 26—Knoxville**—Meeting on exporting to Japan and the Far East, Student Center, U. of Tennessee, 8:30 a.m. Sponsors: Atlanta Field Office and Knoxville, Morristown and Oak Ridge Chambers of Commerce.

**Oct. 30-31—Ann Arbor, Mich.**—Second annual forum on the importance of Japan in international trade, Campus Inn. Sponsors: Institute for International Commerce, U. of Michigan.

**Nov. 14-17—Scottsdale, Ariz.**—Annual conference of world trade officers, Valley Ho Hotel. Sponsor: National Assn. of State Development Agencies, Washington.

**Nov. 17—Greenville, Miss.**—International transportation seminar, Greenville Country Club. Sponsor: REEC.

**Nov. 21 — Memphis** — Memphis World Trade Club meeting, Sheraton Motor Inn.

**Nov. 29 — Chattanooga** — Export marketing conference, Read House, 9 a.m.-4 p.m. Sponsors: REEC, Atlanta Field Office.

**Dec. 1-2—Los Angeles**—Seminar on the problems of investing in developing countries. Beverly Hilton Hotel. Sponsor: Practicing Law Institute.

# Worldwide Business Services

*International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects and notices of U.S. visits by foreign buyers.*

**KOREA**—Forty-one firms in Taegu, Korea's third largest city, seek **licensing or joint venture agreements.** Interests include production of bicycle parts, plastic products, seasonings, electric heaters, ice cream, fuel pumps, furniture, cosmetics and nails. The Taegu Chamber of Commerce is prepared to assist interested U.S. investors. Write: Lee Jong Wang, Executive Vice President, Chamber of Commerce, Taegu, Korea. A list of projects is available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. P-72571.

**2042—MAURITIUS**—Sugar estate interested in corresponding with U.S. firms producing **high nutrient cattle feed.** Clement Ray, manager, Constance Sugar Estate, Port Louis, Mauritius. P-72570.

**2600, 2800 — MAURITIUS** — Mauritian sugar industry, which produces some 100,000 tons of bagasse annually, is interested in installing a small processing plant to process bagasse. Possibilities under consideration **include pulp-making; production paper from pulp and production chemicals which might have local or foreign industrial uses.** Prepared to consider joint venture. Clement Ray, manager, Constance Sugar Estate, Port Louis, Mauritius. P-72581.

**2800—FRANCE**—License to **manufacture hot melts or import hot melt component chemicals** such as terpane resins and micro-crystalline waxes. Firm presently produces and markets synthetic rubber, plastic materials, medicinal chemicals, chemical preparations and abrasive products. M. J. Devorsine, Lamotte et Coiffard, B. P. 27, 94-Ivry-sur-Seine, France. WTD. P-72583.

**2800—SWITZERLAND**—Manufacturing and distribution rights for **cosmetics, toiletries, ethical pharmaceuticals, health foods, pet foods and related products of genuine novelty character.** Firm presently produces items in above product lines, employs 140. Well known on Swiss market. President of firm plans U.S. visit next month. Write: Walter P. Eggimann, president, Paul Eggimann AG, c/o Sidney Draizen, Bristol-Myers International, 345 Park Ave., New York, N.Y. 10010 or Cable: Paul Eggimann AG, Alte Landstr. 32, 8800 Thalwil, Switzerland. WTD. P-72585.

**2812—MAURITIUS**—Industrialist interested in information regarding production of **chlorine, caustic soda or other chemical compounds from ocean salts.** At present salt produced locally for Mauritian needs. Climate considered favorable for further exploitation and Mauritian location good for regional markets. Would welcome correspondents with view to developing specific proposal. Clement Ray, manager, Constance Sugar Estates, Port Louis, Mauritius. P-72580.

**2851—MALTA**—Seeks to expand production of **paint, cement compounds** through joint venture. Penetrate export markets, particularly in North Africa and Middle East. Needs additional machinery. Currently manufactures more than thirty kinds of paints and compounds. Central Mediterranean Products Ltd. (CMPL), 34/6 Strait St., Valletta, Malta. WTD. P-72579.

**2891—ARGENTINA**—Joint venture or similar agreement to manufacture **edible gelatin.** For domestic and export markets. Raw material available. Firm presently produces industrial gelatin and glue. Established in 1885. Roberto H. Colacilli. Colas y Gelatinas, Av. Diag. Norte 651, Of. 138, Buenos Aires. WTD. P-72582.

**2893—SPAIN**—Licenses to manufacture **inks and accessories for silk screen printing.** Also interested in cross licensing agreement and possibly joint venture. Established producer of silk screen printing inks and equipment. Is presently carrying out market survey of silk screen printing industry in Spain. Salustio Ferrer Anglada, Especialidades y Procedimientos Serigraficos (EPSSA), Avenida Vilanova, 5, Barcelona. WTD. P-72572.

**2992 — ARGENTINA** — Licenses to produce **lubricating oils, degreasing agents and phosphatizing compounds.** Presently manufactures and distributes scouring and rust resisting compounds. Customers include major industrial concerns. Domingo Gatto, president, Quimica True S.A.C.I.F., Alsina 833, Buenos Aires. WTD. P-72575.

**3292 — THAILAND** — Operator of three tire retreading plants proposes joint venture or licensing agreement to establish plant for manufacture of **automobile brake linings** with production capacity of 500 m.t. a year. Technical assistance and plant machinery also required. Established in 1958, firm claims annual sales of around $600,000 and currently employs 250. The Ben Trading Co. Ltd., 57-171 Super Highway, Dindaeng, Bangkok 4. Attn.: Paiboon Montien, managing director. P-72573.

**3452 — GERMANY** — Producer and distributor of screws and nails seeks license to manufacture **sheet metal screws, sheeting screws, sealing washers and sheeting nails.** Established in 1946; employs 90; annual sales more than $1 million. Jaeger, Eberhard GmbH, 5922 Berghausen, Germany. P-72574.

**3500—AUSTRALIA**—Major Australian steel company seeks to diversify through licenses. Wants to produce **equipment involving reasonable proportion of steel pipe and/or plate** fabrication. Products of interest include air pollution control equipment, large industrial and municipal incinerators and furnaces, machinery for the marine and offshore industry, mining and steel machinery and equipment for storing liquid natural gas. Company has eleven plants located throughout Australia. Marketing manager, Steel Mains Pty. Ltd., P.O. Box 441, South Melbourne, Victoria 3205. WTD. P-72569.

**3522—PAKISTAN**—Government of Pakistan seeks U.S. participation in project to manufacture **35-45 h.p. farm tractors.** Estimated demand is about 6,000 tractors annually. West Pakistan Industrial Development Corp. (WPIDC) is responsible

*Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.*

*Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.*

*WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.*

for implementing project. Interested firms should submit proposals by October 31. For details write: A. R. Faridi, SQA, chairman, WPIDC, PIDC House, Dr. Ziauddin Ahmad Rd., Karachi-4. Limited number of tender specifications are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230, (202-189-5367). P-72584.

**3533 — UNITED KINGDOM** — Manufacturer of pressure vessels for chemical processing, boilers, mining and quarrying equipment, and steel equipment seeks licenses for the manufacture of **packaged process equipment for off- and onshore oil and gas wells and control equipment such as Christmas trees.** Established in 1854; employs 350; annual sales more than $3.5 million. B. Strathom, sales manager, Robey of Lincoln Ltd., P.O. Box 23, Lincoln LN5 8HB, England. P-72586.

**3540 — SWITZERLAND** — Joint venture proposed by producer of **high precision screw machines, tools, and mechanical, high precision, measuring instruments.** Financial participation sought, with majority interest on part of U.S. firm open to discussion. Company employs 110. Maison Maurer, 2740 Moutier, Switzerland. Attn.: Roger Maurer, director. P-72578.

**3641—JAMAICA**—Joint venture or licensing arrangement proposed by owner of print shop and a cosmetics manufacturer to produce **electric light bulbs.** U.S. share of equity in venture negotiable. Plans call for exporting part of production to Latin America. N. G. Rochester Trading Co. Ltd., 5 Upper Ivy Rd., Kingston 5. Attn.: Noel G. Rochester, managing director. WTD. P-72577.

## Licensing In U.S.

*For additional information on opportunities to manufacture foreign firm's products in the U.S., write Commerce's Office of International Investment, BIC-874, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.*

**BELGIUM/UNITED KINGDOM**—A Belgian firm is offering through its British representative license for U.S. manufacturers to produce its **computer controlled machine for phototypesetting of business forms** in the United States. **File 2269**

**GERMANY**—An inventor offers manufacturing and marketing rights in the U.S. for his process used in **production of electrical insulating sheet material from mica flakes.** The process involves cleaning and splitting of scrap mica into minute flakes, which then are treated with a special bonding agent and cured. The resultant sheets are said to have excellent dielectric, heat and water resistant properties for use in toasters, heaters, and other items. **File 2270**

**GERMANY**—A medium-sized firm is interested in licensing arrangements with American firms for production in the U.S. of **toilet preparations, especially skin and beauty-care products, and of insecticides. File 2271**

**HUNGARY**—A company is seeking a partner in the United States to assist in the establishment of **high protein fodder plants** in the U.S. and/or in third countries operating according to the patented VEPEX (Vegetable Protein Extract) process developed by the Budapest Technical University. **File 2272**

**NETHERLANDS** — A manufacturer of roofing materials is seeking a U.S. firm to manufacture and market in the U.S. its special patented **clip for fastening insulation material on horizontal or vertical surfaces** (roofs, walls or ceilings). **File 2273**

**NETHERLANDS** — A bureau is interested in having its **floating pier** manufactured under license in the United States. This pier is designed much like that now in marinas: a walkout platform (jetty) with shorter platforms extending perpendicular along its stretch for docking pleasure craft. However, this unit consists of factory-made aluminum framework covered with impregnated softwood deck and hardwood buffer strips, and there are polystyrene flotation elements clamped under the jetty. The landing platforms reportedly can be easily positioned to suit the widths of different boats, and the unit is particularly suitable for rough water. **File 2274**

**NEW ZEALAND**—A mechanical engineer is interested in finding a U.S. licensee for an **earth auger device** he has developed. This is a lightweight, portable machine capable of boring straight horizontal holes under roadways and the like, or downward for posts and piles. It requires minimal site preparation, and can be operated within a trench with approximately six feet of space. **File 2275**

**SWEDEN**—An engineering firm is offering for production in the U.S. under license a patented **ball-shaped container which holds all kinds of liquids,** pressurized or non-pressurized. Materials for this container are PVC, polyethylene, the new LOPAC, or possibly some combinations of plastics-paper, or aluminum-paper-plastic. **File 2276**

**SWITZERLAND**—A small to medium-sized manufacturer is seeking a U.S. licensee to manufacture in the U.S. its line of **hydraulic vises and and clamping tools. File 2277**

**SWITZERLAND**—One of the largest engineering and construction companies specializing in tunnels, bridges, and highways is offering for production in the U.S. under license patented **dispersion-type blasting explosives.** These explosives do not have nitroglycerine or nitroglycol. **File 2278**

**SWITZERLAND**—A medium- to large-sized company which specializes in heating systems offers license for manufacture in the U.S. of its **special radiators** used in homes, apartments and commercial buildings. **File 2279**

**SWITZERLAND** — A trading company specializing in commercializing new developments and inventions offers license in the U.S. for a novel type of **solid soap for permanent installation in washrooms, hotels, restaurants and similar public facilities. File 2280**

## Austrian Firm Can Represent U.S. Producers In E. Europe

An Austrian firm desires to represent U.S. manufacturers of the following products in Eastern and Southeastern Europe, particularly in Czechoslovakia, Hungary and Yugoslavia: electric and electronic apparatus and systems, electric and mechanical measuring and control equipment, motors and industrial machinery, industrial and technical supplies. Interested U.S. firms should contact Inglomark Industrie-Belieferungs-Gesellschaft Markowitsch & Co., Mariahilferstrasse 133, A-1151 Vienna. WTD 7/72.

## Indonesia Issues Invitation To Bid For Palm Oil Mill

Indonesia's Perusahaan Negara Perkebunan VI (Government Estates Enterprise VI) has issued a bid invitation for the furnishing, delivery, commissioning, and building of plant and equipment for the rehabilitation of the Pulu Raja palm oil mill in Sumatra. The project is to be financed by a credit from the International Development Association. Bid deadline is Jan. 5. Copies of a telegram from the U.S. Embassy in Djakarta which provides general bid information are available from the Construction, Water Resources & Eng. Div., BDC-742, U.S. Dept. of Commerce, Washington, D.C. 20230, ★(202-967-3602) and the U.S. Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., P.O. Box 36013, San Francisco, Calif. 94102, ★(415-556-5864). One set of the tender documents is being sent by the Embassy to the Construction, Water Resources and Eng. Div. and will be available for review during office hours in Room 2118, Main Commerce Department building in Washington.

## Hong Kong Seeks Turnkey Leather Finishing Plant

A Hong Kong businessman is seeking competent U.S. firms to offer assistance for a turnkey leather finishing plant for both leather and suede. Finished goods will be consumed primarily by the local garment industry. Hides and skins will be purchased from the People's Republic of China, New Zealand, Australia, U.S. Interested U.S. firms should contact United States Consulate, Attn: Commercial Section A-270, 26 Garden Rd., FPO San Francisco, Ca., 96659.

## Japanese Firm Offers To Serve As Sole Catalog Agent

Arika Kaburagi, of S.S. Ltd., has expressed an interest in having his company act as sole catalog agent in Japan for an American mail order house. The firm currently imports automotive parts, but will consider affiliation with an American firm handling other products. Interested U.S. firms should contact Mr. Kaburagi at the Tokyo Oroshiuri Center, 22-17 Cotanda 7-chome, Shindgawa-ku, Tokyo.

## Ecuador Seeking Bids On Ammunition Plant

The Government of Ecuador is inviting bids for a planned ammunition plant. Bids should be filed not later than Oct. 31. Specifications are available from Trade Opportunities Division, Rm. 4813, BIC-831, U.S. Dept. of Commerce, Washington, D. C., 20230.

# Foreign Trade Opportunities

*These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, BIC-831, and units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.*

*U. S. firms should be aware that the listing in* Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Deparment of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

*Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.*

*The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.*

*WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-976, Washington, D.C. 20230.*

## Direct Sales

*Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.*

### Meat products

20153—TOGO—Turkey tails, parts. Quotations c.i.f. Lome. Approx. 1,000 cartons monthly. Etablissement Commercial Nopeli (importer, dist., retailer), 28, rue Thompson, B.P. 8045, Lome. WTD 7/71.

### Canning, preserving foods

20321 — GERMANY — Canned dietetic prepared food for weight control, enriched with proteins. Direct purchase & agency. Ernst Nowak (importer, dist., agent), 6074 Urberach, Siemensstr. 4. WTD 9/72.

20342 — GERMANY — Dietetic food for weight control, dried, powdered, enriched with proteins. Direct purchase & agency. Ernst Nowak (importer, dist., agent), 6074 Urberach, Siemensstr. 4. WTD 9/72.

### Grain mill products

20440 — TOGO — Milled rice. Quotations c.i.f. Lome. Approx. 50 metric tons per month. Samples requested. Etablissement Commercial Nopeli (importer, dist., retailer), 28, rue Thompson, B.P. 8045, Lome. WTD 7/71.

### Bakery products

20520 — CANADA — Confectionery biscuits, cookies, etc., in trailer load quantity. Also interested in once over special offers. B. L. Marks Sales Co. Ltd., Attn: Jack L. Tully, Gen. Mgr. (importer, dist., broker), 70 Doncaster Ave., Willowdale, Ontario. WTD 5/71.

### Sugar

20620—FRENCH WEST INDIES—Refined sugar for use in manufacture of fruit jams, jellies. Initial purchase approx. 50 tons. Cavaco, S. A. (mfr.), Saint-Charles, Gourbeyre, Guadeloupe. WTD 3/72.

### Confectionery

20712 — CANADA — Confectionery specialties in trailer load quantities. Also interested in once over special offers. B. L. Marks Sales Co. Ltd., Attn: Jack L. Tully, Gen. Mgr. (importer, dist., broker), 70 Doncaster Ave., Willowdale, Ontario. WTD 5/71.

### Broad woven fabric mills, cotton

22110 — BURUNDI — Drapery fabrics, pure cotton or mixed, plain and printed, in various widths. Correspondence requested in French. Dinos Tsimidopoulos (importer, retailer), B.P. 333, Bujumbura. WTD in prep.

22119—GERMANY—Terry cloth towels. Direct purchase on exclusive sales rights for Germany. Frottier-Hammer GmbH (importer, dist.), 75 Roedelheimer Landstr., 6000 Frankfurt/main 90. WTD 9/72.

### Broad woven fabric mills, manmade fiber, silk

22210—BURUNDI—Silk & manmade fiber drapery fabrics, including glass fiber, plain & printed, in various widths. Correspondence requested in French. Dinos Tsimidopoulos (importer, retailer), B.P. 333, Bujumbura. WTD in prep.

### Fabricated textile products

23910 — BURUNDI — Window curtains, pure cotton, manmade fiber fabrics, or mixed, in various widths. Correspondence requested in French. Dinos Tsimidopoulos (importer, retailer), B.P. 333, Bujumbura. WTD in prep.

### Sawmills, planing mills

24290 — TRINIDAD & TOBAGO — Red cedar shingles. Furness & Gordon Ltd. (importer, retailer, wholesaler), 82 Independence Square, Port of Spain, Trinidad, W.I. WTD 6/72.

### Paper mills

26214—JAMAICA — Uncoated off white book paper. Quotations c.i.f. Kingston. Quantity 16 tons. The House of Printall Ltd., Attn: Dr. Hector E. Karram, Mng. Dir. (importer, dist., mfr.), 85-87 Industrial Terrace, Kingston 14. WTD 9/72.

26216 — ITALY — Wrapping paper; all kinds, including wrapping kraft paper, shipping sack bag, and sack; other converting paper. Approx. 400 m. tons annually. I. Gi. Esse S.p.A. (importer, mfr.), Viale Michelangelo 1179, 90135 Palermo. WTD in prep.

26216—JAMAICA—Ledger paper for use in printing business. Quotations c.i.f. Kingston. Size 28″x34″; quantity 100 reams annually. The House of Printall Ltd., Attn: Dr. Hector E. Karram, Mng. Dir. (importer, dist., mfr.), 85-87 Industrial Terrace, Kingston 14. WTD 9/72.

### Converted paper, paperboard products

26412 — JAMAICA — Wax coated paper for production of paper cups. Quotations c.i.f. Kingston. Ewan D. Macdougall (Dental) Ltd., Attn: Noel A. Lue (importer, agent), 6 East Parade, Kingston. WTD 8/72.

26490—JAMAICA—White bond paper in rolls to be used on roll or web-fed printing machine. Quantity 6 tons. Quotations c.i.f. Kingston. Size 22″x34″; weight 32 lbs. approximately. The House of Printall Ltd., Attn: Dr. Hector E. Karram, Mng. Dir. (importer, dist., mfr.), 85-87 Industrial Terrace, Kingston 14. WTD 9/72.

### Periodicals: publishing & printing

27213—BRAZIL — Technical periodicals. Direct purchase & agency. Importadora de Revistas Santiago Ltda. (importer, dist., agent), Av. Rio Branco 106/108 grupo 1810, Rio de Janeiro, GB. WTD 8/72.

### Books

27313—BRAZIL—Technical books, periodicals. Direct purchase & agency. Importadora de Revistas Santiago Ltda. (importer, dist., agent), Av. Rio Branco 106/108 grupo 1810, Rio de Janeiro, GB. WTD 8/72.

### Industrial chemicals

28150—YUGOSLAVIA—D 1 maleic acid; annual minimum purchase of 100 tons

contemplated with delivery desired in successive lots of 10 to 15 tons. "Kemikalija" Export-import, Attn: Mrs. Elvira Stefanic, Chief, Foodstuff Dept. (importer, agent), Savska 62, P.O. Box 200, 41000 Zagreb, Croatia. WTD 4/72.

### Synthetic materials

28211—JAMAICA—P.V.C. tubing ⅜" diameter x 1/32" thickness—about 10,000 ft. annually. Quotations c.i.f. Kingston. N. G. Rochester Trading Co. Ltd., Attn: Noel G. Rochester, Mng. Dir. (importer, dist., mfr.), 3 Upper Ivy Rd., Kingston 5. WTD 9/72.

### Drugs

28315—SPAIN—Antibiotic preparations for veterinary use. Xanco, Attn: Fernando Tamames (importer, dist., agent), Ausias March, 113, Barcelona 13. WTD in prep.

28331—SPAIN—Antiobiotics for use in poultry feed supplements for treatment of coccidiosis. Xanco, Attn: Fernando Tamames (importer, dist., agent), Ausias March, 113, Barcelona 13. WTD in prep.

28349—SPAIN—Vitamins, minerals for use in feed supplements. Xanco, Attn: Fernando Tamames (importer, dist., agent), Ausias March, 113, Barcelona 13. WTD in prep.

### Soap, detergents, cleaning preparations, perfumes, cosmetics

28445—ITALY—Toilet preparations, including hair preparations, oral hygiene products, creams, lotions. A.C.R.A.F., Aziende Chimiche Riunite Angelini Francesco, S.p.A. (importer, dist., mfr.), P.O. Box 4022, Appio, 00100 Rome. Attn: Dr. Piero Ceroli. WTD 8/72.

### Paints, varnishes, lacquers, enamels

28510—ARGENTINA—Paints, varnishes, lacquers, enamels, allied products. S. A. Alba, Attn: Mr. Fernando B. F. Fuentes (importer, dist., mfr.), Centenera 2750, Buenos Aires. WTD 4/72.

28510—GERMANY—Paint, alkyd interior flat. Mil. specification TT-P-30 B; paint, latex base, interior, ready mixed flat, white, beige, green, ivory and pink—mil. specification TT-P-29 G. Odenwaelder Lackfabrik Georg Sehr K. G. (importer, dist., mfr.), 6123 Bad Koenig, Postf. 57. WTD 9/72.

28517 — BRAZIL — Industrial varnishes. Coladesi Industrias Quimicas Ltda. (importer), Caixa Postal 4844, Rua Matinoré 457/475, Rio de Janeiro—GB. WTD 6/72.

### Agricultural chemicals

28712 — ARGENTINA — Urea (45% N) fertilizer for use in sugar cane plantations. Correspondence requested in Spanish. Compañía Azucarera Concepción S.A. (dist., mfr.), San Martín 662, Piso 5°, Buenos Aires. WTD in prep.

28790—PORTUGAL—50 tons of technical copper oxychloride for fungicide formulation. Valadas Ltda. (importer), Calcada Marques de Abrantes 40 R/C Dto. Lisbon. WTD 1/72.

### Chemical products

28911—BRAZIL—Glues, adhesives, resins. Coladesi Industrias Químicas Ltda. (importer), Caixa Postal 4844, Rua Matindré 457/475, Rio de Janeiro. WTD 6/72.

### Petroleum refining

29110—GERMANY—Petroleum coke. Direct purchase & agency. H. J. Schmidt K.G. (importer, dist.), 5450 Neuwied, P.O.B 2168. WTD 4/72.

### Luggage

31610—BURUNDI—All types of suitcases, men's and women's hand luggage, attaché cases, beauty cases, zippered travel bags in different qualities (except leather) and dimensions. Most requested dimensions for low-price luggage: 28-30" x21-22"x8-9"; with reinforcing belt. Articles to be packed in wooden cases, to avoid damage during shipment. Correspondence requested in French. Dinos Tsimidopoulos (importer. dist., retailer), B.P. 333, Bujumbura. WTD in prep.

### Handbags, personal leather goods

31720—GERMANY—Watch straps made of leather and plastics. Karl Belihar Lederwarenfabrik (importer, mfr.), D-722 VS-Schwenningen, Wasenstrasse 34. WTD 9/72.

### Glass, glassware

32291 — BURUNDI — Table & kitchen glassware. Correspondence requested in French. Dinos Tsimidopoulos (importer, dist., retailer), B.P. 333, Bujumbura. WTD in prep.

### Abrasive, asbestos, nonmetallic mineral products

32912 — FRANCE — Diamond abrasive wheels. Support: bronze, carbide, tungsten. Diameter: 257 mm, 320 mm, 450 mm. Quantity: 50,000 to 100,000. Erika International S.A. (importer, dist.), 48 Rue Guynemer, 31200 Toulouse. WTD 7/72.

32950—GERMANY—Kaolin for paper, ceramic industries; sodium feldspat, fluoride, talcum, baryt, manganese ore for ceramic industry. Direct purchase & agency. H. J. Schmidt K.G. (importer, dist.), 5450 Neuwied, P.O.B. 2168. WTD 4/72.

32970 — JAMAICA — Approximately 60 tons (immediate demand 20 tons) of silica refractory for lining 2-ton capacity rotary oil fired furnace. Furnace used for producing ductile iron. Top melting temperature is 1600° C. Cable c.i.f. Kingston offer and availability to CARIBCAST, Kingston. Caribbean Castings & Engineering Ltd., Attn: Mr. Richard Lincoln, Foundry Mgr. (mfr.), 138 Spanish Town Rd., Kingston 11, P.O. Box 163. WTD in prep.

### Steel mill products

33120—HONG KONG — Electrolytic tinplate waste, bright and mat, 18" x 24" and larger, 107 lb. substance and lighter/heavier; galvanized steel wire rejects, soft quality; galvanized plain sheet cuttings, 2' x 4' and larger, B.G. 14-31. Gibb, Livingston & Co. Ltd. (importer, dist., agent), P & O Bldg., 14th Floor, Des Voeux Rd. C., P.O. Box 55. Cable: GIBB. WTD 1/72.

33127—ITALY — Cold-rolled steel sheet and strip. Laminox, S.a.s. (importer, dist., agent), Strada del Drosso 48, 10135 Torino. WTD 12/71.

33160 — HONG KONG — Stainless steel coil/sheets, seconds. surplus lots and cuttings. Gardland Enterprises Inc. (importer, agent), Rm. 503, Bank of East Asia Bldg., Des Voeux Rd. C., P.O. Box 4186. Cable: GARDLAND. WTD in prep.

33160—HONG KONG—Cold rolled steel sheet waste, soft and bright quality, 18" x50" and larger, guages 14-26; zintec steel cuttings, 2'x4' and larger, B.G. 14-26. Gibb, Livingston & Co. Ltd. (importer, dist., agent), P & O Bldg., 14th floor, Des Voeux Rd. C., P.O. Box 55. Cable: GIBB. WTD 1/72.

### Cutlery, hand tools, general hardware

34250—GERMANY—Crosscut frame saw and disk saw for stoneworking industries. Guenther de Pauli (importer, dist.), 326 Rinteln, Bahnhofstr. 29a. WTD in prep.

34290—GERMANY—Diamond-armed implements, equipment for stone-working industries. Guenther de Pauli (importer, dist.), 326 Rinteln, Bahnhofstr. 29a. WTD in prep.

### Heating apparatus, plumbing fixtures

34320—AUSTRALIA — Sprinkler heads, valves and control systems for sprinklers. Farrell Engineering P/L (retailer), 384 Rockeby Rd., Subiaco, West Australia. WTD in prep.

### Screw machine products

34521—JAMAICA—Plastic grub screws —3/16" diameter; acorn nuts—¼" (10,000 annually). To be used in manufacture of hair straightening combs from extruded brass sections. Quotation c.i.f. Kingston. N. G. Rochester Trading Co. Ltd., Attn: Noel G. Rochester, Mng. Dir. (importer, dist., mfr.), 3 Upper Ivy Rd., Kingston 5. WTD 9/72.

### Fabricated metal products

34941 — SPAIN — Automatic regulating and control valves for manufacture of industrial process instruments. Regulacion Electro-Mecanica, S.A. (REMSA), Attn: Sr. Julio Casula V. (mfr.), S. Larenzo, 13, Tarrasa, Barcelona. WTD 9/72.

### Construction, mining, materials handling machinery, equipment

35311 — BRAZIL — Off-highway trucks. Correspondence requested in Portuguese. Combe—Construtora Imbé S.A. (importer), Av. Amaral Peixoto 60 sala 711, Niteroi—Rio de Janeiro. WTD 7/72.

35316 — BRAZIL — Pavers, finishers, spreaders. Correspondence requested in Portuguese. Combe—Constructora Imbé S.A. (importer). Av. Amaral Peixoto 60 sala 711, Niteroi—Rio de Janeiro. WTD 7/72.

35319—NIGERIA—Pneumatic air tools such as torque wrenches, air drills, screw drivers. Mr. H. A. Dawson, Mng. Dir. (importer, dist.), W. F. Clarke (Nig) Ltd., 16 Burma Rd., P.O. Box 178, Apapa. WTD in prep.

### Metalworking machinery

35420—FRENCH WEST INDIES—Can-making machinery. S.A.G.B.A. (Societe Anonyme des Grandes Brasseries Antillaises) (mfr.), Zone Industrielle de la Pointe Jarry, Baie Mahault, Guadeloupe. WTD in prep.

35482 — FRANCE — Nailing machines. Cofiba (importer, dist., retailer), 2 Rue des Fusilles, 94—Vitry Sur Seine. WTD 6/72.

35485—INDIA—Automatic plant to manufacture bicycle roller chains, initial capacity 360,000 chains per annum; size of chain ½"x⅛"x112 links. Equipment

should have facilities to manufacture motor-cycle and scooter chains. Requests quotations c.i.f. Calcutta; descriptive literature. S. N. Nigam, Chairman, Dwarka Industrial Development Pvt. Ltd. (mfr.), 14 Canal St., Calcutta 14, West Bengal. WTD in prep.

### Special industry machinery

**35510—FRENCH WEST INDIES**—Brewers' and maltsters' machinery. Brasserie Lorraine (mfr.), Brasserie Lorraine, Fort-de-France, Martinique. WTD in prep.

**35513 — GUATEMALA** — Small canning machinery, manually-operated for canning snails, pineapple. Oscar Asturias Hall—Librería y Papelería "Molino" (dist., mfr., exporter), 9a. Avenida 9-14, Zona 1, Guatemala City. WTD 9/72.

**35513—THAILAND**—Machinery to grind corn into starch, working capacity 50-200 tons per day; machinery to produce glucose by using starch as raw material. Power consumption to be 220 V., 50 cycles, 3-phase type. Requests catalogs, processing diagrams, prices. Seng Heng Co., Ltd. (dist.), 26 Soi Baan Kluay Tai, Sukhumvit Soi 40, Bangkok. WTD 8/72.

**35513—TRINIDAD & TOBAGO**—Fully automatic machinery for processing oranges, grapefruit into juices. The Huggins Trust Ltd. (dist., retailer, investment co.), 72 South Quay, Port of Spain, Trinidad, W.I. WTD 4/72.

**35520 — SAUDI ARABIA** — Spinning plant, new or second hand, for producing sisal rope of 220 meters/1 kilogram to 400 meters-1 kilogram weight. Desired capacity to be 2,000 kilograms per 8 hrs. Price c.i.f. Jidda and include all fittings, accessories. Automatic Sisal Ropes Factory (importer, dist., mfr.), Kilo 6, Mecca Rd., P.O. Box 385, Jidda. WTD in prep.

**35540—BELGIUM**—Fully automatic machinery for making self-sealing envelopes of various sizes at rate of six hundred envelopes per min. required. Interested U.S. firms should send catalogues, price data to Mr. Zuckerman: L'Industrie Du Livre, S.A.: Rue De Ribaucourt 113-119: 1020, Brussels, WTD in prep.

**35551—JAMAICA** — Continuous stationery printing machine, web-fed, offset lithographic; single color; 220 volt 50 cycle. Brochures, quotations c.i.f. Kingston requested. The House of Printall Ltd., Attn: Dr. Hector E. Karram, Mng. Dir. (importer, dist., mfr.), 85-87 Industrial Terrace, Kingston 14. WTD 9/72.

**35552 — FRANCE** — Photographic type setting machines—offset printing machines. Ets. Astier & Cie (importer, dist.), 9 Rue de Lorraine, 75019 Paris. WTD 7/72.

**35590—ETHIOPIA**—Machinery, material to establish printing ink factory, producing 100 tons per annum. Ato Ogbasion Haile (mfr.), P.O. Box 925, Asmara.

**35593 — ARGENTINA** — Blow-injection and blow-extrusion machines (probably two of each, or more), for manufacture of small size plastic containers, for use in cosmetics, pharmaceutical industry. Rigolleau S.A.I.C. (mfr.), Paseo Colón 800, Buenos Aires. WTD in prep.

**35595 — ARGENTINA** — Brick making machinery for forming hollow bricks using high pressure press molding equipment. Bricks to be made of mixture of lime, sand. Correspondence requested in Spanish. Tomás Carvallo Quintana (importer), Alvarado 1007, Salta, Prov. de Salta. WTD in prep.

**35595—INDIA**—Marble saw blades in lengths of 10 ft. 6 in. to 12 ft. Annual requirements about 1,000 blades. Bodar Marble & Stone Co., Attn: Mr. N. N. Jindal (mfr.), Industrial Area, Chitorgarh, Rajasthan. WTD in prep.

**35595 — ITALY** — Plant machinery and equipment to manufacture incandescent lamps. Interested in turnkey for complete incandescent lamp plant. Frigotecnica Zerilli (importer, mfr.), Viale Regione Siciliana 7620, 90144 Palermo. WTD 9/72.

### General industrial machinery

**35614—NIGERIA** — Industrial compressors, 9 cu. ft. size and larger, handling pressure of 75 lbs. up to 200 lbs. per sq. in. Mr. H. A. Dawson, Mng. Dir. (importer, dist.), W. F. Clarke (Nig) Ltd., 16 Burma Rd., P.O. Box 178, Apapa. WTD in prep.

**35690—FRANCE**—Baling machines for scrap paper and textile. Cofiba (importer, dist., retailer), 2 Rue des Fusilles, 94—Vitry Sur Seine. WTD 6/72.

**35690—JAMAICA**—Machinery for manufacturing of paper cups (disposables). Quotations c.i.f. Kingston. Specifications 50 cycles, 220 volts; three phase. Ewan D. McDougall (Dental) Ltd., Attn: Noel A. Lue (importer, agent), 6 East Parade, Kingston. WTD 8/72.

**35690 — NORWAY** — Generator for production of hydrogen sulfide ($H_2S$); capacity 50 kg/h $H_2S$ gas temperature 80° C. 1 ato. pressure. Falconbridge Nikkelverk A/S, Attn: Mr. Smith-Ovland (mfr.), P.O. Box 457, 4601 Kristiansand. WTD in prep.

### Office, computing, accounting machines

**35731 — GERMANY** — Data processing equipment. F.o.b. USA; terms of payment: 30 days or letter of credit. Direct purchase & agency. Dr. Erwin Kayser, Threde & Co. (importer, mfr.), D-8000 Muenchen 70, Wuermtalstrasse 2. WTD 7/72.

### Service industry machines

**35811—FINLAND**—Coin operated vending machines (for cigarettes, candy, etc.). Tampereen Särkänniemi Oy, Attn: Olavi Joenpolvi, Dir. (municipally-controlled tourism enterprise), Särkänniemi, 33230 Tampere 23. WTD in prep.

**35812—JAPAN**—"Forged coin detecting machine" for use with coin changing machines; machines that change paper money for coin. Seika Sangyo Co., Ltd., Tokyo Office (importer, dist.), New Tokyo Bldg., 3-1 Marunouchi 3-Chome, Chiyoda-Ku, Tokyo, Attn: Mr. Toshio Yamamura, Mgr., Foreign Trade Dept. WTD in prep.

**35820—JAMAICA**—Coin operated laundry washing machines; coin operated laundry dryers and coin operated laundry dry-cleaning machines. Quotations c.i.f. Kingston. Specification 50 cycles, 220 volts, three-phase. Ewan D. Macdougall (Dental) Ltd., Attn: Noel A. Lue (importer, agent), 6 East Parade, Kingston. WTD 8/72.

**35851—EL SALVADOR**—One complete ice plant with capacity to produce 100 to 200 quintals of ice every 10 hrs., in 100-lb blocks; equipped with two low-revolution ammonia compressors (one for emergency use) and easy-to-clean condensor and tubing system due to high alkaline content of water. Correspondence, installation plans, catalogs requested in Spanish. Technician to install equipment also requested. Jose Munguia Flores, Destileria "La Usuluteca," Avenida Guandique No. 9, Usulutan, Departamento de Usulutan. WTD in prep.

**35851—PARAGUAY**—Central air conditioning replacement unit for 130-room hotel. Correspondence in Spanish. Present unit over 50 tons. Hotel Guarani. Senor Humberto Barchini, Pres., Par Mundial, S.A., Casilla de Correo 1053, Asuncion. WTD in prep.

**35853 — SAUDI ARABIA** — Ice making plant; capacity 5 to 10 tons per day, compressor to use amonia for cooling. Price should include necessary power generator capable of handling electrical load for plant's motors, compressors, lighting. Prices c.i.f. Jidda. Mohamed Kamel Kazzaz (importer, dist., retailer), Shara-e-Qabel, P.O. Box 351, Jidda. WTD in prep.

**35891—BOLIVIA**—3 complete cafeterias capable of service to a total of 5,000 students at 3 La Paz locations. Correspondence requested in Spanish. Universidad Mayor de Can Andrés (División de Bienestar) Avenida Villazón 1995, La Paz.

### Machinery

**35992—FINLAND**—Machines, equipment for amusement parks including: coasters, merry-go-rounds, fun houses, shooting galleries, etc. Tampereen Särkänniemi Oy, Attn: Olavi Joenpolvi, Dir. (municipally-controlled tourism enterprise), Särkänniemi, 33230 Tampere 23. WTD in prep.

### Household appliances

**36331—JAPAN**—Gas or electric clothing dryer, cabinet or locker type (not drum spin type), household use. Direct purchase & agency. America-Japan Trading Co., Inc., Development Dept. (importer, dist.), Jujiya Bldg., 5-4 Ginza 3-Chome, Chuo-Ku, Tokyo. WTD 8/72.

**36393—JAPAN**—Dishwashing machines, household use. Direct purchase & agency. America-Japan Trading Co., Inc., Development Dept. (importer, dist.), Jujiya Bldg., 5-4 Ginza 3-Chome, Chuo-Ku, Tokyo. WTD 8/72.

### Electric lighting, wiring equipment

**36430—BRAZIL**—Connectors, electrical, high and low tension; subterranean electrical supplies. Direct purchase & agency. José Silveira (importer, dist., agent), Av. Presidente Vargas, 633 grupo 1622, Rio de Janeiro—GB. WTD 8/72.

**36430 — JAMAICA** — 2-core power cords with adaptable male plugs. Quotations c.i.f. Kingston. N. G. Rochester Trading Co. Ltd., Attn: Noel G. Rochester, Mng. Dir. (importer, dist., mfr.), 3 Upper Ivy Rd., Kingston 5. WTD 9/72.

### Radio, television receiving sets

**36514—FIJI**—Pre-recorded cassette and reel tapes; tape recorders, stereo equipment. Norwest Industries, Ltd. (importer, dist.), 21 Tukani St., Lautoka. WTD in prep.

**36514 — SWITZERLAND** — Stereo preamplifiers, combination preamp/power amplifiers, high sensitivity FM tuners, musical instruments, orchestra amplifiers,

speaker systems, professional, amateur loudspeakers, audio-visual recorders, stereo pillows, other high fidelity equipment, accessories. Exclusive sales rights. Audio Electronic AG (importer, dist.), Bernerstrasse 182, 8048 Zürich. WTD in prep.

**36515—ITALY**—Microphones. Brio Micro Elettronica (importer, dist., mfr.), Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

### Communication equipment

● **36600—ALGERIA**—The Directeur De L'Administration, Ministere Des Postes Et Telecommunications has issued Tender No. 403/TT4.10 for supply and installation of telephone equipment and telephone lines. Bid deadline is Jan. 6. Bid should offer telephone lines and equipment to connect the following: (all in 120 lines or multiples thereof) Bogtob-El Bayadh (105Km) Ain Temouchent-Beni Saf (52Km) Tlemcen-Maghnia-Ghazaouet (estimated at 120Km). Copies of tender announcement and specifications are available from the Directeur De L'Administration, Sous-Direction Du Materlel Et Des Marches, Bureau 227, Ministere Des Postes Et Telecommunications 4, Boulevard Salah Bouakouir, Algiers, Algeria or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Room 1112, U.S. Department of Commerce, Washington, D.C., 20230, ★(202-967-4822).

● **36620 — ECUADOR** — The Guayaquil Port Auth. has issued a Tender No. 03/72B for the supply of six 12 volt transceivers, correspondence in Spanish. Bid deadline is November 24. Copies of tender announcement and specifications are available only from the Guayaquil Port Authority, P.O. Box 5739, Guayaquil for 200 Sucres ($7.90).

**36620 — GERMANY** — Fire and burglar alarm equipment and ionisation fire detectors. F.o.b. shippers' airport; terms of payment: net 60 days. Direct purchase & agency. Fa. Alois Zettler (importer, dist., mfr.), Elektrotechnische Fabrik GmbH, D-8000 Muenchen 5, Holzstrasse 28-30. WTD in prep.

**36620 — GERMANY** — Electronic equipment, particularly telemetering equipment. F.o.b. USA; terms of payment: 30 days or letter of credit. Direct purchase & agency. Dr. Erwin Kayser, THREDE & Co. (importer, mfr.), D-8000 Muenchen 70, Wuermtalstrasse 2. WTD 7/72.

**36621 — ITALY** — Receivers, other commercial industrial and military electronic communication equipment. Brio Micro Elettronica (importer, dist., mfr.), Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

**36622—SWITZERLAND** — Complete radio broadcasting studio sound systems, mixing consoles, accessories. Exclusive distributorship. Audio Electronic AG (importer, dist.), Bernerstrasse 182, 8048 Zürich. WTD in prep.

### Electronic components, accessories

**36792—ITALY**—Miniature electronic capacitors (condensers) for hearing aids. Brio Micro Elettronica (importer, dist., mfr.),Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

**36793—ITALY**—Miniature resistors for electronic applications. Brio Micro Elettronica (importer, dist., mfr.), Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

**36795—HONG KONG**—Copper clad laminate for printed circuit. Gardland Enterprises Inc. (importer, agent), Rm. 503, Bank of East Asia Bldg., Des Voeux Rd. C., P.O. Box 4186. WTD in prep.

**36795 — ITALY** — Miniature and normal size electronic components for computers. Brio Micro Elettronica (importer, dist., mfr.),Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

### Electrical machinery, equipment

**36930—SPAIN**—Ortho-panoramic X-ray equipment. Sudenta, S.A., Attn: Sr. Antonio L. Folch (importer, dist., agent), Ronda de San Antonio, 98—pral., Barcelona 11. WTD 9/72.

### Motor vehicles, equipment

**37141 — BRAZIL** — Parts for passenger cars, trucks. Emerco S. A. Empreza Mercantil e Importadora (importer), R. Mayrink Veiga 4, 11° andar, Rio de Janeiro —GB. WTD 8/72.

### Ship building, repairing

**37313—BOLIVIA**—2 hydrofoils (self-propelled ships), 30 passenger capacity with high capacity Diesel motors able to function on Lake Titicaca (13,000 ft. above sea level). Turbol Ltda. (importer, tourist agent), Calle Mercado 1385, P.O. Box 2008, La Paz. WTD in prep.

**37321—JAMAICA**—Secondhand boat for deepsea fishing. Specifications: 60-80 ft.; steel hull, diesel engine. Quotations. c.i.f. Kingston. Leroy McIntosh & Associates, Attn: Leroy McIntosh (accounting firm), 159A Orange St., Kingston.

### Engineering, laboratory, scientific, research instruments

**38112—GERMANY** — Diagnostic instruments for medical laboratories. Direct purchase & agency. Peter Kalger GmbH (importer, dist., agent), 23 Oberissigheimer Str., 6451 Neuberg b. Hanau. WTD 4/72.

**38112—JAPAN**—NOx and hydrocarbon detection and measuring instruments of chemiluminescence type. Komyo Rikagaku Kogyo K.K. (Komyo Chemical Industries Co., Ltd.) (mfr.), 1-8-24 Chuocho, Meguro, Tokyo. WTD 1/72.

### Instruments for measuring, controlling, indicating physical characteristics

**38216 — CZECHOSLOVAKIA** — Analytical console equipment for measurement and reduction of components of exhaust gases, as follows: CO—range from zero to 10%; $CO_2$—range from zero to 20%; NOx; total hydrocarbons SID; $O_2$—range from zero to 10%. Requests offers, specifications. Ing. Pavel Bym, Development Dept., AZNP. (mfr. of Skoda automobiles), Ing. Pavel Bym Development Dept. AZNP, Mlada Boleslav, Czechoslovakia. WTD in prep.

### Optical instruments, lenses

**38311—ZAMBIA**—Require to purchase directly or an agency to supply following items for 1973: 7,000 National Health Type frames (male). Nose bridge size 22 to 24. Frame size 38 to 50. Equal to Faber's H.2. style or to British National Health, but sturdier; 4,000 as above (female); 3,500 conservative fashionable. (male and female) Nose bridge size 18 to 24. Frame size 38 to 52. Equal to Faber's (male) 5-172; C14; 128; 5-232; 197; (female) 8087; 117; 157; 167; 217 styles; 3,000 fully fashionable (male and female) nose bridge size 18 to 24; frame size 38 to 52; 8,000 sun-glasses in frames of various styles, colors and sizes (male and female); 40,000 white lenses. 70% plano to + & — 200d, of which (at present) 10% are prescriptions carried out overseas including tinted, coated and bifocals. Central African Optics Ltd., Attn: Mr. D. Konkolo, Mng. Dir. (importer, agent, retailer), P.O. Box 2375, Lusaka. WTD 9/72.

### Surgical, medical, dental instruments

**38410 — SPAIN** — Suture needles. Commercial e Industrial Save, S.A. (dist., mfr.), Cabanas, 41, Barcelona 4. WTD 9/72.

**38423—ARGENTINA** — Personal safety clothing, mainly for laborers. Requests catalogs, price lists. Correspondence requested in Spanish. Instituto Técnico Artículos Seguridad Industrial (importer, dist., mfr.), Sarmiento 1574, Piso 1° "G," Buenos Aires. WTD in prep.

**38424—ITALY**—Electronic hearing aids. Brio Micro Elettronica (importer, dist., mfr.), Via Pacchiardo 10040 Valdellatorre, Torino. WTD 5/72.

### Photographic equipment

**38611 — FIJI** — Photographic equipment and accessories. Norwest Industries, Ltd. (importer, dist.), 21 Tukani St., Lautoka. WTD in prep.

### Toys, amusements, sporting goods

**39491—BAHAMAS**—All fishing tackle—rods, reels, fish hooks, casting plus, spinner and spoons, floats, furnished lines, sinkers, snap swivels, etc. State prices for various quantities; state delivery time. Banbury Investments, Ltd., Attn: N. Hempsall (importer, dist., retailer), P.O. Box F-890, Freeport, Grand Bahama. WTD 9/72.

### Pens, pencils, office, artists' materials

**39510—BURUNDI**—All types of fountain pens, ball points. Correspondence requested in French. Dinos Tsimidopoulos (importer, dist., retailer), B.P. 333, Bujumbura. WTD in prep.

### Manufacturing industries

**39992 — FINLAND** — Miscellaneous coin operated amusement machines. Tampereen Särkänniemi Oy, Attn: Olavi Joenpolvi, Dir. (municipally-controlled tourism enterprise), Särkänniemi, 33230 Tampere 23. WTD in prep.

### Antique, secondhand stores

**59330—BURUNDI**—Secondhand clothing by the ton. Correspondence requested in French. Dinos Tsimidopoulos (importer, dist., retailer), B.P. 333, Bujumbura. WTD in prep.

**59330 — TOGO** — Used clothing; annual import of approx. 1,000 bales. Quotations c.i.f. Lome. Ezema Trading Co. (importer, retailer), 13, rue de l'Eglise—B.P. 1697, Lome. WTD in prep.

**59330 — TOGO** — Used clothing, textile remnants; monthly import of approx. 200 bales. Quotations c.i.f. Lome. Etablissment Commercial Nopeli (importer, dist., retailer), 28, rue Thompson, B.P. 8045, Lome. WTD 7/71.

### Motion picture production, distribution

**78130 — CAMEROON** — American commercial films with French soundtrack.

Would accept occasional English-speaking films subtitled in French. Desires to lease about seven films per wk. of which at least three should not have been previously shown in Cameroon. Correspondence preferably in French. MIFI (Societe de Diffusion et D'Exploitation Cinematographique) (importer, dist., mfr.), B. P. Yaounde, WTD in prep.

**Services**

89110 — MEXICO — Information leading toward possible technical assistance contracts and/or equipment sales, on systems of liquid waste (calcium chloride) disposal for large solvay process soda ash plant, and gaseous waste disposal for sodium chloride plant. Lic. Eduardo Gonzalez A., Industria del Alcali, S.A. (mfr.), Apartado Postal 2459, Monterrey, N.E. WTD in prep.

## Swiss Mail Order Firm Wants Sources Of Supply

A Swiss firm, Musexport Ltd., is interested in obtaining additional sources of merchandise supply to sell through their mail order business. The following types of merchandise are of interest: costume jewelry, notions, unusual housewares and curiosities and toiletries; also apparel, body care preparations, bathroom fixtures, automotive and home improvement accessories, labor saving devices, do it yourself equipment, gardening tools and leisure articles. U.S. firms interested in selling merchandise in the above categories should contact Claude W. Riesen, Musexport Ltd., 37 Rue Agasse, 1211 Geneva. WTD in prep.

## Korea To Purchase Scientific And Photographic Instruments

The Office of Supply, Government of the Republic of Korea, Seoul, invites bids for various commodities including projector, color difference meters, testing instruments, DC microammeter, frequency converter, vacuum tubes, X-ray diffractometer. Tender No. KFX-72103-PII, bid deadline Aug. 11. Terms and specifications available on short-term loan from the Business, Photographic and Scientific Equipment Division, BDC-708, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-2939).

## Sprinkler Irrigation System Needed By Ethiopian Agency

The Dairy Development Agency, Addis Ababa (Government agency) requests quotations for a sprinkler irrigation scheme. Tenders should quote prices for a system for growing green fodder on a dairy farm of about 50 hectares. Water will come from a small river with a minimum flow (dry season) of 25 liters per second and a maximum flow of several cubic meters per second. Any system should be planned with future extension in view. Estimated cost, US $17,500.

A copy of the tender is available for reference only at the General Industries Division, BDC-772, U.S. Dept. of Commerce, Washington, D.C. 20230, (202-967-5652). Copies are available for US$2.10 from the Dairy Development Agency, P.O. Box 2002, Addis Ababa, Ethiopia.

# Agencies

*Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.*

**Field crop farms**

01610—GERMANY—Fresh green asparagus. Comarket A. Flatoe (importer, dist., agent), Frankfurt/Main, Westendstr. 8. WTD 9/72.

**Fruits, tree nuts**

01710—GERMANY—Fresh strawberries. Comarket A. Flatoe (importer, dist., agent), 6000 Frankfurt/Main, Westendstr. 8. WTD 9/72.

**Canning, preserving foods**

20324—SWITZERLAND—All kinds of genuine novelty food specialties, health foods, diet foods. Paul Eggimann Ag, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**Grain mill products**

20423 — SWITZERLAND — Novelty pet foods. Paul Eggimann AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**Beverage industries**

20840 — JAPAN — Wine, pink chablis (rosé). Tokiwa Trading Co., Ltd. importer, dist., agent), Ginsen Bldg., 8-2 Moto-Asakusa 1-chome, Taito-ku, Tokyo. WTD in prep.

20853—GERMANY—Whiskey. Ernst Nowak (importer, dist., agent), 6074 Urberach, Siemensstr. 4. WTD 9/72.

**Broad woven fabric mills, cotton**

22117—GERMANY—Broad woven cotton and cotton/synthetic fabrics, plain dyed and finished; printed and finished; yarn-dyed fabrics; fabrics for home furnishings. Hermann A. Pfaeffle, Textilagentur (dist., agent), 7 Stuttgart 70, Rotwiesenstr. 6. WTD 9/72.

**Broad woven fabric mills, manmade fiber, silk**

22218—GERMANY—Finished manmade fiber broad-woven goods, plain dyed, printed; fabrics for home furnishings. Hermann A. Pfaeffle, Textilagentur (dist., agent), 7 Stuttgart 70, Rotwiesenstrasse 6. WTD 9/72.

**Floor covering mills, products**

22710—CANADA—High quality carpeting as well as custom made carpets for Western Canada trade. East India Carpets Ltd. (importer, retailer), 1606 West 2nd Ave., Vancouver, B.C. WTD 9/72.

**Millwork, veneer, plywood, prefabricated structural wood products**

24318—FRANCE—Staircases and stairs, wood. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

**Wood products**

24996—JAMAICA—Prefinished paneling, including vinyl covered; cheaper grades, 3/16" thick. Estimated annual volume is 4,000 panels. Brochure, price list requested. Exclusive agency. A. L. Thompson Building Supplies Ltd. (importer, agent, retailer), P.O. Box 292, Grand Cayman, Cayman Islands, B.W.I. WTD 2/72.

**Household furniture**

25144—THAILAND — Furniture, household, metal, luxury type. Requests c.i.f. Bangkok prices, catalogs, brochures. International Decor Corp. Ltd., Attn: Mr. Chatchaval Suwanvitoo (importer, retailer), 2nd Floor, Indra Shopping Center, 2055 Rajprarob Rd., Bangkok. WTD 5/72.

**Furniture, fixtures**

25912—FRANCE—Blinds, venetian and blinds vertical. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

**Pulp mills**

● 26100 — NIGERIA — Nigerian Paper Mills, Ltd. requires 1,000 tons bleached softwood sulphate with shipments scheduled September through December; 200 tons semibleached softwood sulphate with shipments in September and October and 500 tons of unbleached softwood sulphate per mo. through 1973. Also requires 200 tons unbleached softwood sulphite. Terms c.i.f. from date of bill of lading, letter of credit confirmed by prime U.S. bank. Quotations requested by telex addressed "Paper NG" 21399 Lagos.

**Industrial chemicals**

28190 — GERMANY — Chemicals to be used in connection with exploration and processing of natural and industrial gases (silica gel, other drying agents). Terms of delivery, payment subject to negotiations. U.G.T. Union fuer Gastechnik GmbH (importer), D—8192 Geretsried 1, near Munich, Blumenstrasse 5. WTD 7/72.

**Drugs**

28340—SWITZERLAND — Ethical pharmaceutical preparations, all kinds. Paul Eggimann AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**Soap, detergents, cleaning preparations, perfumes, cosmetics**

28421—SWITZERLAND—Household insecticides, repellents. Paul Eggimann AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

28421—THAILAND — Mosquito preventive skin lotion for military use. Requests c.i.f. Bangkok prices, brochures, literature. Sang Suwan Sahakit Ltd., Part. (real estate dealer), 184 Soi Phya Sri, Fueng Nakorn Rd., P.O. Box 2-6, Bangkok. WTD 8/72.

28423 — GERMANY — Marine cleaning products. Seehandel A. Schadagies (importer, agent), 6704 Mutterstadt, Doppelbrett 11. WTD 8/72.

28423 — SWITZERLAND — Specialty cleaning, sanitation products for household use. Paul Eggimann, AG, Attn:

W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**28424 — SWITZERLAND** — Household polishes, all kinds. Paul Eggimann AG, Attn: W. P. Eggiman, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**28430 — GERMANY** — Electrical parts cleaners and degreasers, rust removers, surface brighteners. Seehandel A. Schadagies (importer, agent), 6704 Mutterstadt, Doppelbrett 11. WTD 8/72.

**28430—FRANCE**—Coatings additives (to agglomerate and thicken) for walls, floors, unsupported textiles. Petronaphte S.A. (dist.), 321 Danielle Casanova B.O. 20, 13307—Marseille Cedex 3. WTD 7/72.

**28442—SWITZERLAND**—Perfumes, toilet waters, colognes, related toiletries. Paul Eggimann, AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**28443 — SWITZERLAND** — Shampoos, hair dressing and coloring products, hair tonics, dandruff removal preparations, wave set preparations, other genuine novelty hair preparations. Paul Eggimann AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**28444 — SWITZERLAND** — Dentifrices, mouthwashes, gargles, rinses, related oral hygiene products. Paul Eggimann AG, Attn: W. P. Eggimann (dist., mfr.), 8800 Thalwil. WTD in prep.

**28445 — SWITZERLAND** — All kinds of genuine novelty cosmetic, toilet preparations, such as creams, lotions, oils, lip preparations, rouges, eye preparations, deodorants, nail preparations, bath oils, other preparations, depilatories, etc. Paul Eggimann Ag, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

### Paints, varnishes, lacquers, enamels

**28519 — THAILAND** — Photosensitive emulsion used in map making, for color-proof coating thin opaque white Vinylite sheet which is specially prepared matte surface for retaining the emulsion. Colors required: black, red, blue, brown, green and yellow. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. Bangkok Photo Supplies Ltd., Part. (importer, dist., retailer), 318 New Road, Opp. Capital Theatre, Bangkok. WTD in prep.

### Chemical products

**28993—THAILAND**—Flares for signalling, pen size. Requests c.i.f. Bangkok prices, catalogs, literature. Sang Suwan Sahakit Ltd., Part. (real estate dealer), 184 Soi Phya Sri, Fueng Nakorn Rd., P.O. Box 2-6, Bangkok. WTD 8/72.

### Products of petroleum, coal

**29920—GERMANY**—Fuel oil treatments for large bore diesel engines, chemical additives to fuels for marine boilers. Seehandel A. Schadagies (importer, agent), 6704 Mutterstadt, Doppelbrett 11. WTD 8/72.

### Plastic products

**30792 — CANADA** — Foamed plastics products, including insulation material. Victor D. Hossack, Manufacturer's Agent (agent), 695 Island Park Dr., Ottawa, Ontario K1Y 0B8. WTD in prep.

**30793 — JAMAICA** — Laminated plastic sheets (formica type); size 4'x8'. Estimated annual volume—2,000 sheets. Exclusive agency. A. L. Thompson Building Supplies, Ltd. (importer, agent, retailer), P.O. Box 292, Grand Cayman, Cayman Islands, B.W.I. WTD 2/72.

**30793—THAILAND** — Laminated plastic sheets, Formica or equal. Requests c.i.f. Bangkok prices, catalogs, brochures. International Decor Corp. Ltd., Attn: Mr. Chatchaval Suwanvitoo (importer, retailer), 2nd Floor, Indra Shopping Center, 2055 Rajprarop Rd., Bangkok. WTD 5/72.

**30794 — FRANCE** — Jerrycans, bottles, caps, etc. for pharmaceuticals, cosmetics. Société EVOR (importer, dist.) B.P. 142, 75—Paris 17. WTD 6/72.

**30796—CANADA**—Construction plastics products, including block reinforcing materials, internal and external facing materials, plumbing materials. Victor D. Hossack, Manufacturer's Agent (agent), 695 Island Park Dr., Ottawa, Ontario K1Y 0B8. WTD in prep.

**30796—JAMAICA**—P.V.C. pipes and fittings: drain, pressure types. Brochure, price list requested. Exclusive agency. A. L. Thompson Building Supplies Ltd. (importer, agent, retailer), P.O. Box 292, Grand Cayman, Cayman Islands, B.W.I. WTD 2/72.

**30798—FRANCE**—Plastic tiles. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Structural clay products

**32510—FRANCE**—Brick and structural clay tiles. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

**32530 — FRANCE** — Ceramic wall and floor tiles. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Concrete, gypsum, plaster products

**32720—FRANCE**—All types of concrete building materials. Luterma, S.A. (importer, dist.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Cut stone products

**32813—FRANCE**—Flagstones. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Abrasive, asbestos, nonmetallic mineral products

**32950—BRAZIL**—Sulfur. Stanley Rygler (dist., agent), Caixa Postal 3118—ZC-00, Rio de Janeiro—GB. WTD 9/72.

**32961—THAILAND** — Acoustical board, fire-proof. Requests c.i.f. Bangkok prices, catalogs, brochures. International Decor Corp. Ltd., Attn: Mr. Chatchaval Suwanvitoo (importer, retailer), 2nd Floor, Indra Shopping Center, 2055 Rajprarop Road, Bangkok. WTD 5/72.

### Secondary smelting, refining of nonferrous metals

**33410—BRAZIL** — Secondary nonferrous metals. Stanley Rygler (agent), Caixa Postal 3118—ZC-00, Rio de Janeiro—GB. WTD 9/72.

### Cutlery, hand tools, general hardware

**34291—AUSTRIA**—Marine hardware, including propellers, for inboard and outboard motor boats. Correspondence in German. Catalogs, price quotations requested. Roetzer Ges. M.b.H. (agent, dist.), Muthgasse 105, A-1190 Vienna. WTD in prep.

**34291 — VENEZUELA** — Marine hardware.Varaderos y Astilleros del Lago, C.A.—Vadelca (mfr.), Edificio Jugo, Avenida 1B, and Apartado 509, Maracaibo, Estado Zulia. WTD 9/72.

**34294—FRANCE**—Locks; lock sets; door locks. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Heating apparatus, plumbing fixtures

**34320 — SWEDEN** — Plumbing fittings, brass goods. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

### Fabricated structural metal products

**34430 — THAILAND** — Sectional water tank, galvanized, 4 x 4 x 4 ft. consisting of 3/16" thick steel plates, L-shape angle bars, corners & rivets. Requests c.i.f. Bangkok prices, brochures. T. Thaveesin Ltd., Part. (importer), 1922/3 New Rd., Bangkok. WTD in prep.

**34460—FRANCE**—Stairs, prefabricated metal; staircases prefabricated metals. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

### Metal stampings

**34610 — FRANCE** — Curtain walls for buildings, steel. Luterma, S.A. (importer, dist., mfr.), 139, Ave. Paul Vaillant-Couturier, 93120 La Courneuve. WTD in prep.

**34615—JAMAICA**—Stainless steel kitchen utensils: spoons, graters, spatulas, whisks, tongs, etc., for domestic use. Must be able to withstand salt water corrosion. Brochure, price list requested. Exclusive agency. A. L. Thompson Building Supplies Ltd. (importer, agent, retailer), P.O. Box 292, Grand Cayman, Cayman Islands, B.W.I. WTD 2/72.

### Fabricated metal products

**34940—SWEDEN**—Valves, pipe fittings used in heating, ventilation, sanitary, petroleum industry. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

**34941—GERMANY** — Valves (automatic control), up to 75 atmospheric excess pressure, to be used in gas industry (natural and industrial gases). Terms of delivery, payment subject to negotiations. U.G.T. Union fuer Gastechnik GmbH (importer, exnorter), D 8192 Geretsried 1 b. Munich, Blumenstrasse 5. WTD 7/72.

**34946—GERMANY**—Quick pipe connectors and couplers for petrochemical piping systems. Emco Wheaton GmbH. (dist., mfr., agent), 3570 Kirchhain, Postfach 25. WTD 2/72.

### Engines, turbines

**35191—AUSTRIA**—Inboard motors for runabouts, cabin cruisers, utility boats. Correspondence should be in German. Catalogs, price quotation requested. Roetzer Ges. m.b.H. (agent. dist.), Muthgasse 105, A-1190 Vienna. WTD in prep.

**35195—AUSTRIA**—Outboard motors for runabouts and utility boats. Correspondence should be in German. Catalogs, price quotations requested. Roetzer Ges. M.b.H. (agent, dist.), Muthgasse 105, A-1190 Vienna. WTD in prep.

35199—VENEZUELA—Parts for marine internal combustion engines. Varaderos y Astilleros del Lago, C.A.—Vadelca (importer, mfr.), Edificio Jugo, Avenida 1B, and Apartado 509, Maracaibo, Estado Zulia. WTD 9/72.

### Farm machinery

35222—PORTUGAL—Farm wheel tractors, over 20 engine horsepower. Monteiro Gomes Lda. (importer, agent), Rua Cascais 47 (Alcântara), Lisbon 3. WTD in prep.

35227 — FRANCE — Small and average sized power lawn mowers with rotary blades for garden use. Motor: 3½ hp. U.S. plant price should be approx. $60. Polymark France S.A. (importer, dist.), 54 Rue de la Rochefoucauld, B.P. 38, 92-Boulogne. WTD in prep.

35227 — FRANCE — Lawn mowers, gas operated. Paris Moteurs Service, S.A.R.L. (dist.), 69, rue Curial, 75019 Paris. WTD in prep.

35228 — ETHIOPIA — Farm elevators. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

35228—SWITZERLAND — Portable fogging generators, self propelled, hourly output up to 100 liters, particle size 0.5-10 microns, for insecticide, fungicide fogging, disinfecting, sterilizing jobs; similar equipment for aerial spraying. Traconsa AG (agent), Rotbuchstr. 42, CH-8600 Duebendorf. WTD 5/72.

### Construction, mining, materials handling machinery, equipment

35311 — PORTUGAL — Wheel tractors, contractors' off-highway type. Monteiro Gomes, Lda. (importer, agent), Rua Cascais 47 (Alcântara), Lisbon 3. WTD in prep.

35312—PORTUGAL — Tracklaying type tractors. Monteiro Gomes, Lda. (importer, agent), Rua Cascais 47 (Alcântara), Lisbon 3. WTD in prep.

35318—CANADA—Compactors and self-propelled rollers, for construction industry. Dodwell & Co., Ltd., Attn: Ted Chisholm (dist., agent), 116 Galaxy Blvd., Rexdale, Ontario. WTD 3/72.

35318 — PORTUGAL — Motor scrapers, graders, dozers, other heavy construction, earthmoving machinery. Monteiro Gomes, Lda. (importer, agent), Rua Cascais 47 (Alcântara), Lisbon 3. WTD in prep.

35340—ETHIOPIA — Elevators, electric for passengers. MABRAT — Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

35361 — CANADA — Hand and electric chain hoists—¼ ton to 5 ton. Dodwell & Co., Ltd., Attn: Ted Chisholm (dist., agent), 116 Galaxy Blvd., Rexdale 605, Ontario. WTD 3/72.

35370—FRANCE—Elevating tables and platforms. Frankel S.A. (importer, dist., mfr.), 2 rue du Chariot d'Or, 77400—Lagny. WTD 6/72.

### Metalworking machinery

35410 — GERMANY — Machine tools, metal cutting type. Agency for Eastern Europe exclusively. E. Van Hazebrouck K.G. (importer, agent, export agent (Eastern Europe), 37 Savigny Str., P.O.B 3226, 6000 Frankfurt/Main. WTD 8/72.

35410—ISRAEL—Numerically-controlled machining centers — milling/turning/grinding and drilling machines, NC and conventional; special-purpose machine tools. Exclusive agency. El-Hayil Export & Investment Co. Ltd. (importer, dist., agent), P.O. Box 3413, Tel Aviv. Cable address: YILEXPO; telex: Chambercom TV 484 El. WTD 6/71.

35420 — GERMANY — Machine tools, metal forming type. Agency for Eastern Europe exclusively. E. Van Hazebrouck K.G. (importer, agent, export agent (Eastern Europe)), 37 Savigny Str., P.O.B 3226, 6000 Frankfurt/Main. WTD 8/72.

35484—ETHIOPIA—Automotive maintenance equipment. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

## Special Action

*Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U. S. Commercial Officers overseas.*

35330 — UNITED KINGDOM — Component products or smaller types of equipment for use by oil industry in offshore exploration, production. Bestobell Ltd., Attn: Mr. P. S. C. Forster, Group Market Research & Planning Mng. (mfr.), Stoke House, Slough, Buckinghamshire. WTD 9/71.

### Special industry machinery

35521 — SPAIN — Cleaning and opening machinery; carding machinery; drawing frames; spinning frames. Bastos y Cia., S.A. (importer, dist., agent), Via Layetana 89, Barcelona 10. WTD in prep.

35531—INDIA—Power chain saws with bar length 80 in. to 120 in.; specialized power chain saws for plywood industries. Indiana International, Attn: Mrs. Kiran Aggarwal, Mgr. (agent), 2001 Ugger Sen St., Bazar Sita Ram, Delhi-6. WTD in prep.

35540 — GERMANY — Machinery and equipment for pulp and paper industry. C.i.f. Hamburg or Bremen. Dipl.-Ing. Walther Heller (agent), D-8000 Muenchen 40, Karl-Theodor-Strasse 79/IV. WTD 6/72.

35551—FRANCE—Printing presses for hot marking. Ets. Hocquard-Dec. Mark (importer, agent, retailer), 8 rue Manessier, 94—Nogent-sur-Marne. WTD 7/72.

35552—FRANCE—Hot marking ribbons for printing. Ets. Hocquard-Dec. Mark (importer, agent, retailer), 8 rue Manessier, 94—Nogent-sur-Marne. WTD 7/72.

35592—FRANCE—Mechanical and foundry machinery. Promafond (dist., agent, retailer), 50 Blvd. de Strasbourg, 75—Paris 10. WTD in prep.

35595—NEW ZEALAND—Mattress filling machinery, machines for inserting springs into mattresses. Abron Machines Ltd., Attn: E. R. Harvey, Gen. mgr. (agent), P.O. Box 38130, Petone. WTD 8/72.

35595—THAILAND—Minting equipment, complete line. Requests catalogs, technical data. C.i.f. Bangkok prices. Anglo-Thai Engineering Ltd., Attn: Paul Yates, Mgr., Security Div. (importer, dist., retailer), 137 Wireless Rd., Bangkok. WTD 2/72.

### General industrial machinery

35610 — GERMANY — Pumps for petrochemical, chemical fluids. EMCO Wheaton GmbH (dist., mfr., agent), 3570 Kirchhain, Postfach 25. WTD 2/72.

35613—CANADA — Submersible pumps used in construction trade. Dodwell & Co. Ltd., Attn: Ted Chisholm (dist., agent), 116 Galaxy Blvd., Rexdale 605, Ontario. WTD 3/72.

35614 — GERMANY — New products in field of gas compressors. Terms of payment, delivery subject to negotiations. U.G.T. Union fuer Gastechnik GmbH (importer, exporter), D-8192 Geretsried 1 b. Muenchen, Blumenstrasse 5. WTD 7/72.

### Service industry machines

35851 — INDIA — Bus air conditioning units suitable for use in high ambient (110° F. and above) and heavy traffic conditions. Units should have own gasoline or diesel engine, preferably air-cooled. Gardners International, Attn: Mr. R. N. Narang, Partner (agent), 158 Golf Links, New Delhi-3. WTD in prep.

35853 — GUATEMALA — Counter beverage-cooling and dispensing equipment, electrical; capacity for four different flavors; 120/220 V 60 cycle a.c. Catalogs, quotations requested. Compania Guatemalteca de Aparatos Electricos, S.A. (importer, dist.), 10A Calle 5-18, Zona 1, Guatemala City. WTD 7/72.

35860—ETHIOPIA—Measuring, dispensing pumps for gasoline stations. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

### Electric transmission, distribution equipment

36110—ETHIOPIA—Electrical transmission and distribution equipment. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

### Electrical industrial apparatus

36215 — ETHIOPIA — Motor-generating sets, other rotating equipment. MABRAT —Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

36216—ETHIOPIA—Parts, supplies for motors, generators, motor-generator sets. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

36220 — UNITED KINGDOM — Optical code reader system for control of production line, similar to the "Accu-sort" system, or equal. Exclusive agency only. Guest International Ltd., Attn: John G. Zuber, Mng. Dir. (mfr., agent, exporter), Nicholas House, Brigstock Rd., Thornton Heath, Surrey CR4 7JA. WTD 7/72.

36220—ETHIOPIA — General industrial power circuit devices, controls. MABRAT —Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

36220—GERMANY—Industrial controls to be used in all fields of gas exploration, analyzing and processing. Particularly interested in new products in this field. Terms of payment, delivery subject to

negotiations. U.G.T. Union fuer Gastechnik GmbH (importer, exporter), D-8192 Geretsried near Munich, Blumenstrasse 5. WTD 7/72.

### Household appliances

**36312 — GERMANY** — New products in field of gas ranges, gas ovens, etc. Terms of delivery, payment subject to negotiations. U.G.T. Union fuer Gastechnik GmbH (importer, exporter), D-8192 Geretsried near Munich, Blumenstrasse 5. WTD 7/72.

**36360 — NEW ZEALAND** — Industrial sewing machinery for mattress stitching, binding. Abron Machines Ltd., Attn: E. R. Harvey, Gen. Mgr. (agent), P.O. Box 38130, Petone. WTD 8/72.

### Electrical lighting, wiring equipment

**36421 — ETHIOPIA** — Residential type electric fixtures. MABRAT — Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

**36421—THAILAND** — Lighting fixtures, for indoor & outdoor decorations. luxury type, electric. Requests c.i.f. Bangkok prices, catalogs, brochures. International Decor Corp. Ltd., Attn: Mr. Chatchaval Suwanvitoo (importer, retailer), 2nd Floor, Indra Shopping Center, 2055 Rajprarop Rd., Bangkok. WTD 5/72.

**36425 — ETHIOPIA** — Outdoor lighting equipment. MABRAT — Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

**36430 — AUSTRALIA** — Components for electrical appliances such as washing machines, electric ranges, refrigerators, etc. including: heavy duty program push button switches; toggle switches; rocker switches. McMurdo (Australia) Pty. Ltd. (importer, dist., agent), 19 Carinish Rd., Clayton, Victoria 3168. WTD 5/72.

### Electronic components, accessories

**36790—GERMANY** — Passive electronic components; base materials for printed circuits boards; interconnection devices and components. Terms of payment: 30 days; terms of delivery: asap. Comtronic GmbH (importer, dist), D-8000 Muenchen 90, Theodolindenstrasse 4 b. WTD 6/72.

### Electrical machinery, equipment, supplies

**36930—SPAIN**—Intensive care units including monitoring equipment. Comercial Medico Quirurgica (importer, dist., agent), Cartagena, 299-301, Barcelona 13. WTD 9/72.

**36930—SPAIN** — Electrotherapeutic apparatus. Comercial e Industrial Save, S.A. (dist., mfr.), Cabanas, 41, Barcelona 4. WTD 9/72.

**36945 — ETHIOPIA** — Complete electric equipment for internal combustion engines. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

### Ship building, repairing

**37321—AUSTRIA**—Inboard powered runabouts and cabin cruisers under 26 ft. in length, of wood or reinforced plastic. Correspondence in German. Catalogs, price quotations requested. Roetzer Ges. m.b.H. (dist., agent), Muthgasse 105, A-1190 Vienna. WTD in prep.

**37322 — AUSTRIA** — Outboard motor boats, runabouts and utility, of reinforced plastic; prefabricated boat construction kits. Correspondence in German. Catalogs, price quotations requested. Roetzer Ges.m.b.H. (dist., agent), Muthgasse 105, A-1190 Vienna. WTD in prep.

**37323—AUSTRIA** — Sailboats, including catamarans and trimarans. canoes, dinghies, of reinforced plastic. Correspondence in German. Catalogs, price quotations requested. Roetzer Ges.m.b.H. (dist., agent), Muthgasse 105, A-1190 Vienna. WTD in prep.

**38111—AUSTRIA**—Nautical instruments for motor boats (runabouts, cabin cruisers, utility). Correspondence in German. Descriptive materials, price quotations requested. Roetzer Ges.m.b.H. (dist., agent), Muthgasse 105, A-1190 Vienna. WTD in prep.

### Engineering, laboratory, scientific, research instruments

**38112 — GERMANY** — Sophisticated scientific instruments related to ultra high vacuum physics; scientific instruments related to Leed, Rheed and Sheed methods for analysis of surface structures; scientific instruments for analysis of crystalline structure of metals and alloys; cryogenic instruments. Vacuum Generators GmbH, Attn: Hienz J. Kruger (I, A, D), 29 Schillingstrasse, 1 Berlin 52. WTD 9/72.

**38112—SPAIN**—Laboratory, scientific instruments. Comercial Medico Quirurgica (importer, dist., agent), Cartagena, 299-301, Barcelona 13. WTD 9/72.

**38112 — SWEDEN** — Apparatus and instruments for chemical and biochemical laboratories such as centrifuges, incubators, dilutors, laboratory washers, pH-meters, spectrophotometers, waterbaths, deionizers, stirrers, circulated thermostatic baths. AB Biotec (importer, agent, exporter), Maria Skolgata 83, S-116 52 Stockholm. WTD 6/72.

**38113—SWEDEN**—Laser tools, systems used in building, construction, engineering industry. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

**38113 — THAILAND** — Drafting instruments for use in map making. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. Bangkok Photo Supplies Ltd., Part. (importer, dist., retailer), 318 New Rd., Opp. Capital Theater, Bangkok. WTD in prep.

### Instruments for measuring, controlling, indicating physical characteristics

**38210 — UNITED KINGDOM** — Force, pressure, displacement transducers for electronic weighing equipment. Exclusive agency only. Guest International Ltd., Attn: John G. Zuber, Mng. Dir. (mfr., agent, exporter), Nicholas House, Brigstock Rd., Thornton Heath, Surrey CR4 7JA. WTD 7/72.

**38212—ETHIOPIA**—Integrating meters, non-electrical type. MABRAT—Technical Trading & Engineering (importer, dist., agent), Debre Zeit Rd., P.O. Box 3084, Addis Ababa. WTD 5/72.

**38212 — GERMANY** — New products in field of gas meters, accessories. Terms of delivery, payment subject to negotiations. U.G.T. Union fuer Gastechnik GmbH (importer, exporter), D-8192 Geretsried 1 b. Muenchen, Blumenstrasse 5. WTD 7/72.

**38213—GERMANY**—Meters for petrochemical and chemical fluids; level indicators for petrochemical and chemical storage tanks. EMCO Wheaton GmbH (dist., mfr., agent), 357 Kirchhain, Postfach 25. WTD 2/72.

**38213—SWEDEN**—Industrial process instruments. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

**38216—SWEDEN** — Mechanical measuring, controlling instruments used in heating, ventilation, sanitary field. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

**38220—SWEDEN** — Automatic temperature controls. Aktiebolaget Askania (importer, agent), Fack, S-104 60 Stockholm 20. WTD 9/72.

### Surgical, medical, dental instruments

**38410—FINLAND** — Ultrasonic diagnostic instruments with registering units for obstetrics, blood pressure measuring apparatus and monitors, disposable oxygen inhaling equipment, battery powered peripheral nerve stimulators, pacemakers for urology, lamps for operating theatres and examination rooms, electrical aid units and needles for acupuncture method for anaesthetists. Meditekniikka Oy, Attn: Mr. Rolf Jakobsson, Mng. Dir. (importer, dist., Urheilukatu 50, 00250 Helsinki 25. WTD 9/72.

**38410 — SPAIN** — Operating tables and lamps, electric scalpels. Comercial Medico Quirurgica (importer, dist., agent), Cartagena, 299-301, Barcelona 13. WTD 9/72.

**38421 — SPAIN** — Ultrasonic sterilizers. Comercial Medico Quirurgica (importer, dist., agent), Cartagena, 299-301, Barcelona 13. WTD 9/72.

**38421 — SPAIN** — Surgical, orthopedic, prosthetic appliances, supplies. Comercial e Industrial Save, S.A. (dist., mfr.), Cabanas, 41, Barcelona 4. WTD 9/72.

### Jewelry, silverware, plated ware

**39142 — JAMAICA** — Stainless steel knives, knife sets for kitchens. Brochure, price list requested. Exclusive agency. A. L. Thompson Building Supplies Ltd. (importer, agent, retailer), P.O. Box 292, Grand Cayman, Cayman Islands, B.W.I. WTD 2/72.

### Toys, amusement, sporting goods

**39490—CANADA**—Sporting goods. David Lewis, Tra-On Canada Ltd. (importer, dist., agent), 7055 Alexandra St., Montreal 327, Quebec. WTD in prep.

### Pens, pencils, office, artists' materials

**39522 — THAILAND** — Waterproof inks for plastic sheet used in map making. Colors required: black, red, yellow and blue. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. Bangkok Photo Supplies Ltd., Part. (importer, dist., retailer). 318 New Rd., Opp. Capital Theater, Bangkok. WTD in prep.

### Manufacturing industries

**39991 — THAILAND** — Self-defense tear gas sprayer, 250-500 c.c. cylinder, portable. Requests c.i.f. Bangkok prices, catalogs, literature. Sang Suwan Sahakit Ltd., Part. (real estate dealer), 184 Soi

Phya Sri, Fueng Nakorn Rd., P.O. Box 2-6, Bangkok. WTD 8/72.

39999 — SWITZERLAND — Genuine novelty giftware, all kinds, Paul Eggimann AG, Attn: W. P. Eggimann, Pres. (dist., mfr.), 8800 Thalwil. WTD in prep.

**Services**

89110—THAILAND—Consulting and engineering services relating to water and waste treatment in small and medium-sized tropical communities. Local company seeking qualified American firm to aid in capturing growing market in these environmental control fields. Yip In Tsoi & Co., Ltd., Attn: Mr. Tawat T. Yip In Tsoi, Dir. (dist., agent, retailer). 523 Mahaprutaram Rd., Bangkok. WTD in prep.

# Future Construction Abroad

JAPAN — The Ministry of International Trade and Industry (MITI) recently announced plans to develop a **pilot system for production of reduced iron (containing 95 percent or more Fe) by utilizing nuclear heat.** This will be a six-year project beginning April 1, with a $26 million allocation. The program must receive national budget approval before funding, and although no serious problems are anticipated, the final allocation may be cut. If such a mill is developed, it could lead to the development of nuclear electric power plants, and chemical and petrochemical mills powered by such heat. However, even if the pilot project proved successful, at least another five to ten years would be required for industrialization. Interested U.S. firms should contact the Ministry of International Trade and Industry, 1, 3-chome, Kasumigaseki, Cheyoda-ku, Tokyo.

KUWAIT — Officials at the Ministry of Public Works have announced a general preview of some **major forthcoming construction and engineering projects.** Total value of the works listed below amounts to more than $33 million. The Ministry expects to have all of these projects tendered by late November. 1) *Recca Town Services*—This $11.2 million tender will call for the construction of roads, water distribution systems and sewers which will service the 15,000 low-income housing units located south of Kuwait City. 2) *Storm Water System* will implement the storm water network design drawn up by the Swedish consulting firm, VBB. The tender will call for construction of several inland, underground pipes running to the sea. Cost is set at $6 million. 3) *Kuwait-Saudi Road*—A 76 kilometer road which will run west from Jahra village to the Saudi border. Cost will be $4.5 million. 4) *Freeway Design* — the Ministry intends to hire a consultant to design a completely controlled, high-speed expressway which will run from downtown Kuwait south to Ahmadi, a distance of over 40 kilometers. 5) *Interchange Design*—The same consultant selected for the expressway will also be required to plan 15 interchanges to service various parts of Kuwait City. 6) *Miscellaneous Road Construction* — $12 million has been budgeted for the following projects: new construction in suburban Hawalli; repaving the Kuwait City-Basra road; new construction in Salmiyah.

ARGENTINA—YPF (Yacimientos Petroliferos Fiscales), the Argentine State Petroleum Co., **investment/expansion plans** for 1972 center on the development of fields now in production, the expansion, modernization and construction of refineries, the construction of a pipe line, a large storage facility, and the installation of petrochemical plants. The total projected cost of the program announced is more than $85 million. The principal projects are: *Campo Duran:* Propane recovery plant; gasoline reformer. *Cordoba:* Lubricant mixing and packaging plant. *La Matanza:* Storage facility and petroleum pipe line to Buenos Aires port area. *Plaza Hincul:* Renovation of refinery. *Comodoro Rivadavia:* Petroleum products shipping terminal. *Dock Sud:* New refinery. *La Plata:* Topping unit of 12,000 cubic meters per day; paraffin plant; propylene recovery unit; di-biobenzene plant; plant for tetra isopropylbenzene. *Puerto Rosales-La Plata* pipe line. *Bahia Blanca:* Puerto Galvan storage facility. *Santa Cruz-El Condor Cerro Redondo:* Exploitation of proven field. *Tierra Del Fuego* (San Sebastian): Exploitation of proven field. Financing for these projects has not been arranged yet. Export-Import Bank financing could play a key role in successful sales by U.S. producers of equipment, technology, engineering and services. For further information on these projects, interested U.S. firms should contact Dr. Hector J. Fiorioli, Chief of the Investigation and Development Dept., Y.P.F., Av. Roque Saenz Pena 777, Buenos Aires; Ing. Roberto J. Rauil, Manager of the Dept. of Works Engineering, same address, or Ing. Andres Rozlosnik, Chief of the Planning and Development Dept., same address. YPF received a proposal from a group for the formation of a corporation to produce polypropylene at the *Lujan de Cuyo* refinery in Mendoza. This group represents two petrochemical companies operating in Argentina, namely Petroquimica Sudamerica S.A. and Petroquimica Panamericana. The plant is to produce 20,000-30,000 m.t. of polypropylene per year, for use as the raw material for making synthetic fibers and derivatives, particularly, a substitute for raffia (palm fronds) for bags. The major market for such bagging materials is for cereals. Some importation of equipment will be necessary for this plant also. The major contacts on this project are Ing. Ind. Jose Luis Morales, Y.P.F.-Petroquimica, Viamonte 783, 3rd floor, Buenos Aires, and Dr. Antonio Rivas, Industrial Manager, Petroquimica Sudamericana, Peru 556, Buenos Aires.

CANADA—Construction started in early July on a **$21 million apartment complex** on the banks of the Capilano River in North Vancouver. The complex, which will accommodate nearly 2000 persons, will consist of 1,322 units. The parking space and recreation facilities will be underground. Phase one of the project should be completed by December 1973. Interested U.S. suppliers are welcome to bid on all types of supplies and equipment normally required for buildings of this nature. All inquiries should be addressed to: Ian Monroe, Project Manager, Dawson Development, 745 Clark Dr., Vancouver, B.C.

JAMAICA—The Ministry of Housing recently signed a contract for construction of **476 low-cost one and two-bedroom rental houses** in Duhaney Park, a Kingston suburb. Construction is to begin shortly, and the first phase of the $2.25 million project is expected to be finished within seven months. With this project, the Jamaican Government is introducing a new approach to construction in the Jamaican building industry. The major contractor, West Indies Home Contractors Ltd., will construct the outer shell of each building, and smaller contracting firms will install the fixtures, doors and windows. Developers—Ministry of Housing, 2 Hagley Park Rd., Kingston 10, Tele: 926-1590. Architects & Contractors—West Indies Home Contractors Ltd., 7-9 Harbour St., Kingston, Tele: 922-6670.

ITALY—After many years of preparatory study the joint Italian-French project to construct a **12.8 kilometer auto tunnel beneath the Frejus Pass** is expected to get underway by late 1973. This project, which will parallel the existing rail connection between Bardonecchia and Modane, may be of interest to U.S. construction firms as well as manufacturers of boring equipment, ventilation and electric lighting systems, computerized traffic control mechanisms, and related devices. The total cost of the tunnel is now estimated at about $93 million. Technical feasibility studies for the Frejus project are in the final stages of approval by the parliaments of the two governments. Briefly, the tunnel will consist of two, 3.5 meter-wide lanes, plus lateral shoulders of 1.5 meters for slower traffic. The minimum height will be 4.5 meters, sufficient to accommodate most commercial vehicles, and will be the longest vehicular tunnel in the world. The project will also entail construction of at least 100 kilometers of new approach routes on both sides of the border. Interested U.S. firms should submit proposals or requests for technical information by letter to the respective companies in charge: Societa' Italiana Traforo del Frejus, Via Lagrange 2, Turin, Italy, and the Societe Francaise Tunnel Routier du Frejus, c/o Chambre de Commerce, Lyon, France. The terms of tender are expected to be announced during the first quarter of 1973, firms wishing to qualify as bidders should take steps to make their interest known.

COLOMBIA — A planned **$10 million shopping center,** to be called "Complejo Comercial Unicentro", will cover 130,000 square meters (including parking), to be built north of Bogota on Avenida 127. The project will include supermarkets, drugstores, automatic laundries, restaurants, a bowling alley, a movie, bookstores, art painting centers, florists, closed circuit TV for security, etc. Ground-breaking is anticipated about May, with completion due about November 1974. Financing is still being sought. Juan Pizano hopes to be the construction contractor for the project. Interested U.S. firms may contact Juan Pizano, Pizano Pradilla, Caro, Restrepo, Ltda., Calle 16, No. 6-34, 11th fl., Bogota. Other participant firms are: Pedro Gomez & Cia., S.A., and Hernan Casas y Asociados.

**BOLIVIA** — According to an announcement made by President Banzer in celebrating the third anniversary of the founding of Channel 7 Television Boliviana, bids will soon be called for the purpose of **expanding Bolivia's television network.** The tender will solicit bids on equipment and materials to expand the country's present television facilities from a single La Paz station to a network covering the entire country. U.S. firms interested in additional details may write directly to Empresa Nacional de Television, Casilla 900, La Paz.

**ARGENTINA**—Industrias Agrofert S.A., a medium-sized corporation engaged in the importation, compounding, and sale of fertilizers and pesticides is considering the possibility of setting up a **plant to manufacture calcium triple superphosphates in granular form.** The firm forecasts that within two years the local demand for calcium triple superphosphates could be between 75,000 and 100,000 tons annually. The following fractionation plants should be considered when submitting estimates: plants for grinding of phosphoric rock; the elaboration of sulphuric acid; the elaboration of phosphoric acid; the elaboration of calcium triple superphosphates. The firm wants the following information for each plant: a) general characteristics of the manufacturing complex, such as space required, approximate consumption of raw material and electric power; b) approximate total investment in U.S. dollars; c) most economical capacity needed for each individual plant; d) financing available; e) time required for installation of entire plant. Interested U.S. firms can write to Industrias Agrofert S.A., Sarmiento 320, Buenos Aires.

**KOREA**—The Korea National Railroad (KNR) has announced that the Republic of Korea Government is negotiating a World Bank/IDA railway equipment loan of $40 million; 271 passenger coaches ($18.1 million); rolling stock maintenance equipment ($4.2 million); 50,000 M/T rails ($10.3 million); 9,000 M/T bridge girders ($3.6 million); track maintenance equipment ($2.5 million), and five railway cranes ($1.4 million). Of the passenger coaches, KNR hopes that its backshop could compete in international bidding for 10 ordinary sleeping cars and 199 ordinary passenger cars. Most of the components could be made locally, but some, for example bogies, must be imported. Neither KNR's backshop nor Korea Heavy Industry can make air-conditioned passenger cars, and therefore KNR plans to import 31 air-conditioned cars to operate with nine power generating cars and 22 individually air-conditioned passenger cars. Interested U.S. firms which desire additional information should write to: Mr. Ahn Chang Hwa, Chief Overall Planning Office, Korea National Railroad, Seoul.

**SAUDI ARABIA**—The Saudi Ministry of Communications, Riyadh, is expected to award in the near future a contract for the major construction and civil engineering works of the **Damman Port Expansion Scheme,** which involves construction of eight vessel berths and a small-vessel harbor and related facilities. The estimated cost of this project is SR 180 million. Five European firms bid on this project in May 1971. The Ministry may retender a project calling for the construction of 45 housing units for the Port's consulting engineering personnel; also, the tendering of a contract for the supply and installation of the Port's power plant and a new telecommunication system. Sometime this year, The Ministry of Communications is expected to release a tender for construction of a SR 10 million **fishing boat pier at Jubail.**

**IRELAND**—Three articles on the Developments at the Port of Dublin, which appeared in an issue of *Business and Finance* are available to interested U.S. firms from the U.S. Department of Commerce, Business Opportunities Division, BDC-584, Rm 4813, Washington, D.C. 20230.

**KOREA**—The Ministry of Construction will procure $300,000 worth of **road construction and maintenance equipment.** International bidding invitations will be issued soon. The following equipment is required for the first procurement plan: six motor graders; two wheel loaders; twenty-four dump trucks; two asphalt plants; two asphalt distributors; two air compressors; two blades for snow removers; one line marker; two crushing plants; six station wagons; six pick-up trucks; four vibrating rollers; four asphalt sprayers; one dredger and screening plant.

**KOREA** — A ten-year **Fire Equipment Development Plan** has been announced by the Seoul City Government. The city intends to replace obsolete fire equipment and build new fire stations with a fund of 3.3 billion won, including a foreign loan of $1.5 million, during the period 1972-81. The plan provides for 35 special fire engines, 43 pumpers, 44 tank trucks, 4 leader cars, 9 ambulances, 32 other engines, replacement of 86 old fire engines, 100 motorcycles, and 120 wireless communications sets. Five new fire stations, 19 new police branch offices, and a fire training school are also planned. Finally, it provides for 3073 new hydrants, 327 reservoirs, and 27 water towers.

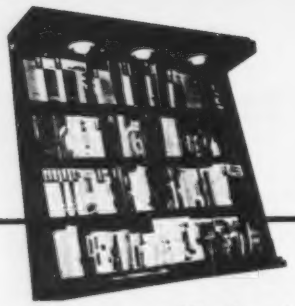
**AUSTRIA** — The Austrian national air carrier, Austrian Airlines (AUA), plans to build a new **repair and maintenance facility at the Vienna/Schwechat Airport.** The new facility will consist of a large hall capable of accommodating aircraft up to the size of a DC-10 or Boeing 747, and annexes housing workships and offices. Construction is expected to commence this fall and take 18 months to complete. The total cost of the project is estimated at about $6.5 to $6.9 million. Opportunities for U.S. companies are seen primarily as suppliers of **testing equipment, workshop facilities and machine tools.** AUA is currently changing over from Caravelle to DC-9 aircraft, a process which is going to be completed late this summer, and the required facilities will be geared to DC-9 aircraft. U.S. firms should have a monopoly as suppliers of this equipment. Interested U.S. firms may write to Technical Dept., Austrian Airlines, Vienna/Schwechat Airport, A-1300 Vienna, Attn: Dipl. Ing. Helmut Schoeberl.

**GUATEMALA**—A contract for the feasibility study for a **hydroelectric generating facility on the Chixoy River** was signed in early May between the Instituto Nacional de Electrificacion (INDE), 6a Avenida 2-73 Zone 4, Guatemala City, and a consortium of American, Swiss and German companies. The participating American firm is International Engineering, Inc. INDE officials expect the study to be completed in about 15 months, after which they will seek financing for construction. INDE views the Rio Chixoy project as a multi-staged development leading eventually to the production of up to 400,000 kilowatts. The study is to present a variety of potential construction sites on the Chixoy, each providing energy of 30,000 to 100,000 kilowats. INDE expects the first facilities constructed to generate about 100,000 kilowatts. It estimates the cost of the project at about $30 million.

**JAMAICA**—Hutton's Worldwide Property Ltd. to start construction in November on **300 houses in Portbello Heights.** Built of precast concrete, the three-bedroom, two-bathroom structures will also have redwood louvre windows and car ports. Developers—Hutton's Worldwide Property Jamaica Ltd., 1A Duke St., Kingston, Tele: 929-2320. Architects—K. D. Watson & Associates, Montego Bay P.O., Tele: 952-1352. Contractors—Flatlets Jamaica Ltd., 1A Duke St., Kingston, Tele: 929-2320. Surbiton Property Development Co. is beginning construction of **14 patio villas** in Kingston. The three-bedroom units will have two floors, with the kitchen, living room, covered service area and one bed/sitting room on the ground floor. Two bedrooms will be located on the top floor. Featuring three bathrooms, full air conditioning and partly carpeted floors. Construction is to be completed within seven months from the start of construction. Developers—Surbiton Property Development Co., 2 Chelsea Ave., Kingston 10, Tele: 936-6787. Architects—Marvin Goodman & Assoc., 5½ Waterloo Rd., Kingston 10, Tele: 926-6241. The contractors will be named shortly.

**SURINAM**—The Government of Surinam is planning an **intensive development for the Nickerie District** in the western-most part of Surinam during the next few years. Projects include bauxite mining and processing, railroad and highway construction, hydroelectric development, port development and expansion, forestry development, irrigation expansion, and land clearing. Financing and technical services are being provided by the Government of the Netherlands, the European Economic Community Development Fund, and the United Nations Development Program. There should be a good opportunity for sales of a wide variety of U.S. goods and services.

**KOREA**—The Ministry of Construction has contacted World Bank and Asian Development Bank (ADB) officials regarding the possibility of a soft loan to finance an **expansion of the Seoul-Inchon expressway.** The project would get under way by 1976 at the earliest. There are two alternative proposals for expanding the 29.5 km. highway which was completed in 1968 with a $6.8 million ADB loan. One proposal is to widen the existing four-lane road to six lanes for an estimated $10.5 million. The alternative is to build an additional 25 km. four-lane highway at an estimated cost of $17.5 million. The feasibility of the expansion still must be studied. Interested U.S. firms should contact Keung-Whan Young, Chief of Highway Planning Div., Bureau of Public Roads, Ministry of Construcion, Rm. 1503, Unified Government Bldg., Seoul.



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**Development and testing of efficient but less costly artificial kidneys** (PB-210 476). U. of Utah. 105pp. Discusses a kidney unit that is easy to operate, has many safety features, is small and compact enough to use in the home, and is less expensive than existing units.

**Considerations in the long-term management of high-level radioactive wastes** (ORNL-4762). Oak Ridge National Lab. 155pp.

**A bibliography of economic and cost analysis** (AD-742 664). Dept. of the Army. Directorate of Cost Analysis, Washington. $6.75. 210pp. Topic areas covered include: CERs, computers, cost/effectiveness, cost elements, criteria, dynamic programming, games, inflation, linear programming, marginal considerations, models, parameters present value (discounting), probability, regression analysis, risk and uncertainty, sensitivity analysis, simulation, and time phasing.

**Polychlorobiphenyls (PCBs) and related chlorophenyls: effects on health and environment. Bibliography 1881-1971** (PB-209 944). Oak Ridge National Lab. 141pp. Covers the majority of articles in all languages on PCBs available through January 1972.

**New superconductors** (AD-740 698). Stanford U. 123pp. Discusses filamentary organo-metallic materials—the conduction mechanism, band theory and screening and progress towards synthesis of metallic chain compounds.

**Readings for the eco-activist: a bibliography of selected environmental publications of the Executive Branch of the Federal Government** (PB-208 943). Information Services Div., Dept. of the Interior, Washington. 48pp.

**Instructional television utilization in the United States** (N72-13135). U., St. Louis. 51pp. Evaluates various aspects of utilizing instructional television and develops basic guidelines for its future utilization.

**Guidelines for generating and using electric power during prolonged emergencies** (AD-739 945). URS Research Co., San Mateo, Calif. $5.45. 140pp.

A comprehensive guide to current research activities of Federal Government R&D laboratories engaged in environmental studies has been prepared by researchers at the Syracuse University Research Corporation. The guide gives a detailed description of the structure, capabilities, and current research activities of approximately 170 laboratories. Information shown for each includes: name, agency, location, mailing address and telephone number, type of installation, mission or main function, budget, unusual equipment or facilities, description of physical plant, future plans, and detailed descriptions of major current environmental research programs.

**Environmental research laboratories in the Federal Government—an inventory, Vol. I** (PB-209 751). $6. 366pp.

**Same title, Vol. II** (PB-209 752). $6. 508pp.

The following reports concern the usefulness of the fluidized combustion system in reducing the emission of sulfur and nitrogen oxides, and particulates from the combustion of coal.

**Reduction of atmospheric pollution, Vol. I: main report** (PB-210 673). National Coal Board, London. $6. 169pp.

**Same Title, Vol. II: Appendices** (PB-210 674). $10.60. 498pp.

**Same Title, Vol. III: Appendices** (PB-210 675). $12.50. 535pp.

**A study of hazardous materials information needs and identification systems for transportation purposes** (PB-210 143). Northwestern U. 183pp.

Priorities in energy-related research and development offered for Government support have been evaluated by researchers at the InterTechnology Corp. Sponsored by the National Science Foundation, the study deals with a plurality of alternatives and their cost-benefit results. Major outputs are a detailed costing, modeling, and the resultant determinations of the influence coefficients of technologies on the cost of energy, primarily electricity. Status and probable trends of important elements in the energy economy are presented, as well as the state of the art and the economics of various alternative means of energy conversion.

**The U.S. energy problem, vol. I: summary** (PB-207 517). $4.85. 83pp.

**Same title, volume II: appendices—part A** (PB-207 518). $12.50. 744pp.

**Same title, volume II: appendices—part B** (PB-207 519). $12.50. 685pp.

Federal supply codes for manufacturers are available on magnetic tape. Tapes are available as: (1) 7 track, 556 or 800 BPI, and odd or even parity, or (2) 9 track, 800 BPI, odd parity. Please specify tape recording mode:

**Federal supply code for manufacturers: cancelled codes, U.S. and Canada, name sequence** (PB-207 209). Defense Logistics Services Center, Battle Creek, Mich. $55, one reel (includes supplements 1-3). Supersedes PB-196 618 and supplements. Tape lists codes of U.S. and Canadian firms that have been cancelled because the business has been discontinued or the corporate status has been altered. Replacement code is included when applicable.

**Same title, current codes, U.S. and Canada, name sequence** (PB-207 210). $110, two reels (includes supplements 1-3). Supersedes PB-195 340 and supplements. Lists establishments which are manufacturers or have design control of items of supply procured by agencies of the Federal Government. Listing contains current five-digit codes for U.S. and Canadian firms and is used in the Federal Catalog System, Supply Management Operations and other functions within the Federal Government where a numerical code for the name of the manufacturer is required or desired.

**Same title, cancelled/replacement FSCM listings, code sequence** (PB-207 211). $55, one reel (includes supplements 1-3). Listing of codes of U.S. and Canadian firms that have been cancelled prior to the republication of this basic handbook. Includes appropriate replacement FSCM Number when applicable.

**Same title, current/obsolete FSCM listings, code sequence** (PB-207 212). $55, one reel (includes supplements 1-3). Listing of codes of U.S. and Canadian firms which are manufacturers or have design control of items of supply procured by agencies of the Federal Government. Data include, for each currently recorded operating manufacturing firm, the street address, city, state, and zip code.

**Same title, current codes, excluding U.S. and Canada, name sequence** (PB-207 213). $55, one reel (includes supplements 1-5). Supersedes PB-193 950 and supplements. Provides a listing of manufacturing organizations located outside the U.S. and Canada which have supplied or are currently supplying items to NATO countries and/or certain other friendly foreign nations. Data are in alphabetic sequence of manufacturers' names and show, for each company, the geographic location, the five-digit numeric code assigned in the FSCM system and/or the five-symbol alphanumeric code assigned in the NATO system.

**Same title, current codes, excluding U.S. and Canada, U.S. code sequence** (PB-207 214). $55, one reel (includes supplements 1-5). Listing of manufacturing organizations located outside the U.S. and Canada which have supplied or are currently supplying items to NATO countries and/or certain other friendly foreign nations. Data include the five-digit numeric coded entries of Section A, reorganized into straightforward numeric sequence of FSCM manufacturers' codes and shows, for each code, the applicable company name, its geographic location, and the applicable five-symbol alphanumeric NATO manufacturers' code.

**Same title, current codes, excluding U.S. and Canada, NATO code sequence** (PB-207 215). $55, one reel (includes supplements 1-5). Listing of manufacturing organizations located outside the U.S. and Canada which have supplied or are currently supplying items to the NATO countries and/or certain other friendly foreign nations. Data include the five-symbol alphanumeric coded entries of Section A, reorganized into straightforward alphanumeric sequence of NATO manufacturers' codes and shows, for each code, the applicable company name, its geographic location, and applicable five-digit FSCM manufacturers' code.

**An economic model of cargo loss: a method for evaluating cargo loss reduction programs** (PB-210 223). Braddock, Dunn and McDonald, McLean, Va. $4.85. 86pp. Develops a method for defining causes and sources of cargo loss to enable development of effective countermeasures and remedial actions.

**Report of the United Nations Conference on the Human Environment, held at Stockholm, June, 1972** (PB-211 133). Secretariat of the United Nations Conference on the Human Environment, Geneva, Switzerland. 145pp. Covers action taken by the Conference (declaration on the human environment, action plan embracing 109 recommendations for international action, and resolutions adopted by the Conference); background of the constitution of the Conference; and proceedings of the Conference (including work of the committees).

**Electrical power supply and demand forecasts for the United States through 2050** (PB-209 266). Hittman Assoc., Columbia, Md. $4.50. 57pp. Explores historical growth of the demand for electrical power, trends in selection of power plant fuels by geographic distribution, projections of power demand growth into the twenty-first century, and potential impacts on national air quality resulting from various alternatives of fuel usage.

**The relationship between land use and environmental protection** (PB-209 642). Argonne National Lab., Argonne, Ill. $4.50. 56pp. Discusses legal, institutional, organizational, and technical aspects of integrating land-use planning and regulation with environmental protection.

The following reports concerning standards governing the amount of settlement costs allowable in connection with the financing of HUD insured and VA guaranteed housing loans are available. The basic report includes recommendations with respect to legislative and administrative actions which should be taken to reduce mortgage settlement costs and to standardize these costs for all geographic areas. The Supplement contains results of a study of existing recording procedures and title insurance practices affecting real estate transfers in twelve representative metropolitan jurisdictions:

**Mortgage settlement costs** (PB-208 019). Dept. of Housing and Urban Development and Veterans Admin. $6.75. 246pp.

**Mortgage settlements costs: supplement—the real estate settlement process and its costs** (PB-208 020). American U., Washington, D.C. $10.60. 468pp.

**An economic perspective on population growth** (AD-738 052). Rand Corp., Santa Monica, Calif. 54pp. Develops a simple model of family behavior in which reproductive behavior is central; identifies ways that economic development and acceleration in population growth affect the family's environment; and discusses consequences, both transitory and permanent, that are likely to follow from mounting population pressures.

**Work adjustment: a dynamic rehabilitation process** (PB-207 486). Vocational Guidance and Rehabilitation Services, Cleveland. 129pp. Discusses a work adjustment center for disabled persons with emotional problems. Major purpose of the workshop is to provide a simulated industrial, competitive employment setting in which clients can be evaluated and gain work experience.

**Monetary value drivers place on comfort in night driving** (PB-210 269). Federal Highway Admin., Washington, D.C. $3.75. 32pp. Determines the cash sum that drivers are willing to pay for additional comfort resulting from a substantial decrease in glare from oncoming headlamps.



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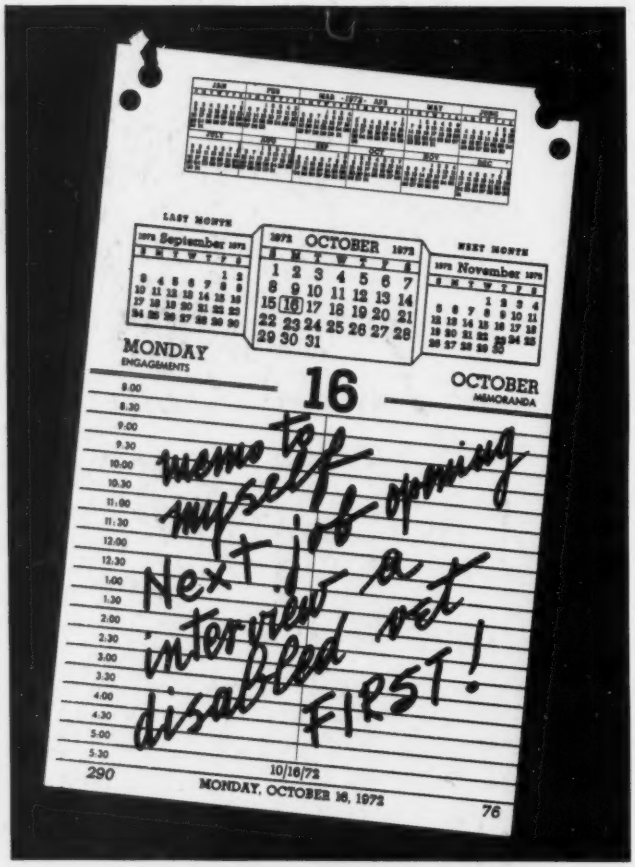


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